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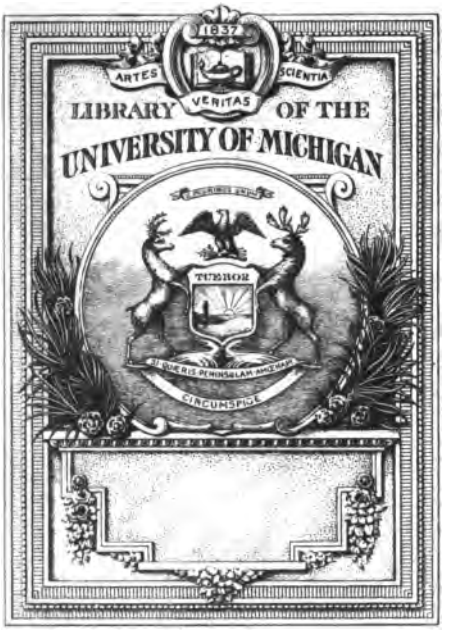
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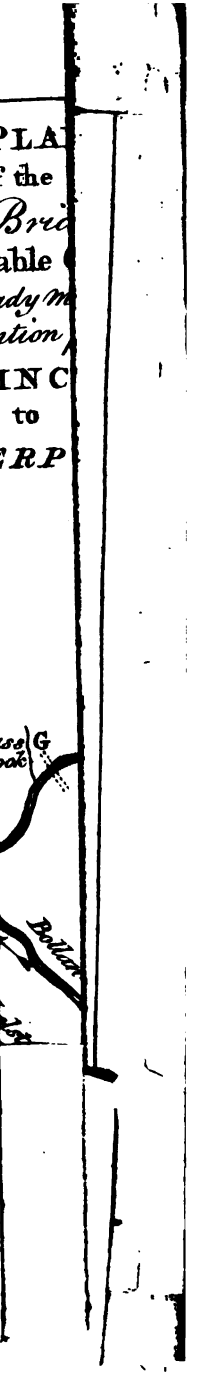

Brindley, James

THE

HISTORY

OF

INLAND NAVIGATIONS.

Particularly those of the

DUKE of BRIDGWATER,

IN

LANCASHIRE and CHESHIRE;

And the intended one promoted by

Earl GOWER and other Persons of DISTINCTION

IN

STAFFORDSHIRE, CHESHIRE, and DERBYSHIRE.

Illustrated with GEOGRAPHICAL PLANS, Shewing the Counties, Townships, and Villages through which these Navigations are carried, or are intended to be.

The Whole shewing the Utility and Importance of INLAND NAVIGATIONS.

Price Two Shillings and Six-pence.

LONDON:
Printed for T. LOWNDES, in Fleet-street.
MDCCLXVI.

1766

TO HIS GRACE

The DUKE of BRIDGWATER.

My Lord Duke,

As you have early in life begun and already half finiſhed a work which few Princes would have ventured to engage in; as an Engliſhman you have my hearty thanks for the great good done the kingdom, and particularly to thoſe parts of it, which from my infancy I have moſt eſteemed. Diſtant counties already ſee the mercantile profits that will ariſe from your Navigation, and are ſtriving who ſhall be the firſt to imitate your works, which by men of great underſtanding were deemed impracticable; and others well ſkilled in the mathematical ſciences have much admired the execution of them. It has been cuſtomary to erect monuments in honour of men who had during their lives diſtinguiſhed themſelves by patriotic ſervices;

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but I wish to see your Grace represented in the prime of life by an elegant statue, or a distinguished pillar, fixed in the centre of St. Ann's Square. This I propose as one grateful record of your fame, which the history of these times will spread through Europe; and I hope, my Lord Duke, to see your Navigation finished, and to bring you annual Treasures, such as few Peers can boast of.

I am,

My Lord Duke,

(though unknown)

Your Grace's

Most obedient Servant,

Manchester,
Feb. 24, 1766.

The EDITOR.

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INTRO-

INTRODUCTION.

WHEN we consider that the wants and necessities of mankind are principally supplied by trade and commerce, it will appear of the utmost importance to render their communication with each other, for those salutary purposes, as easy and as commodious as possible. Thus navigation joins, as it were, the whole world in a social intercourse of benefits, it conveys the superabundance of the productions of one country or climate to another, destitute of those productions or manufactures, and returns to the other the natural or artificial commodities of that country; and every pen has celebrated those great and adventurous men, who by their discoveries in this art, have spread knowledge, humanity and improvement over every part of the globe. Thence have flowed into Europe a full tide of wealth and opulence; and the importance or weight of every nation in this happy quarter of the world, may be deduced from the encouragement they have given to trade, commerce and manufactures, the few restraints they have laid upon these transactions, so necessary to the well-being of states and individuals; which make such an essential difference between the maritime and the military governments, as I venture to stile them, as every one must contemplate with delight and satisfaction.

Subordinate only to navigation upon the ocean, every attempt to facilitate an intercourse between

one diſtrict and another, in any particular country, to render the carriage of the natural or artificial products of the ſeveral provinces of a kingdom, ready and cheap, certainly merits the public attention and applauſe. Without the means uſually employed for this purpoſe, the inhabitants of the northern and ſouthern, or eaſtern and weſtern parts of England, would be little acquainted with each other, or thoſe of the midland parts, and the commodities they peculiarly grow or make, would be almoſt confined to their own conſumption: but the planning, laying out, or improving roads for land communication and carriage, the rendering rivers, where nature has not done it, navigable for veſſels of burthen, has admirably anſwered theſe ends in many reſpects: ſtill there were inland diſtricts remaining, which had no opportunity naturally of a water communication, and many ſtill, whoſe inhabitants have never thought of any ſuch conveyance; by which large tracts of country are locked up in almoſt impenetrable gloom, no verdure chears the eye, and the induſtrious peaſant beholds the fruits of his daily toil confined to his own, or ſent to a diſtant market, with ſuch a load for carriage as eats up his little gains, and cramps him in obtaining the neceſſary articles of ſubſiſtance.

The preſent age, however, will ſhine with diſtinguiſhed luſtre in the annals of our country: We have rendered ourſelves renowned by our warlike atchievements, and, though late, we have begun to improve our country, (during the days of peace) by many praiſeworthy and ſalutary undertakings, of which none redounds ſo much to the public benefit as *inland navigations*, which, as will appear in the ſequel, have been (where already undertaken) executed with ſpirit, and where only planned

ried, proposed with judgment, and inforced by the most solid and convictive arguments; which selfish interest, obstinacy and ignorance have, in vain, endeavoured to refute.

I have said, it was late before this country found out the benefits of inland navigation, which its situation as an island, and its many fine navigable rivers, might conduce to retard us from the thoughts of, though our neighbours and natural allies, in Holland, out of a small tract of marsh-land, by this means, particularly, have raised a populous and powerful state, reverenced and courted by all the world. They have intersected their country with artificial canals, the support and repair of which they attend to with the utmost precaution and diligence; these canals convey away, or receive those waters which otherwise would drown their country. They are the conveyance of travellers and passengers from place to place, as well as of goods of every kind. They turn mills, weave tape, split iron, and perform abundance of other profitable labour. An inhabitant of Rotterdam may hereby breakfast at Delft or the Hague, and dine at Leyden; he may sup at Amsterdam, or return home again before night. In frosty weather, travelling on these canals, on skaits, is still more expeditious, and carts and sledges are substituted, for heavy burdens, in the room of boats and barges, which are as much employed on their canals as in their streets. By means of their canals and navigable rivers, they carry on that immense inland trade to all parts of France, Flanders, and Germany, which has never been exceeded by any other people. France exhibits also instances of industry and contrivance in canals for inland navigation. The canals of Briere and Orleans supply

Paris with the productions of divers provinces, and the south of France with the cloths, stuffs, and camblets of Abbeville, Amiens, Rheims, Sedan, and Lisle, from whence, by the same conveyance, they furnish the north of France with Provence oils, Muscadel wines, dried fruits, hard ware, paper, and other merchandizes of the south. The junction of the Somme with the Oyse, opens to Paris a ready conveyance for the grain of Picardy, and the sea, coal, wood, butter, copper, and spices of the northern provinces of the kingdom. The junction of the Ocean with the Mediterranean, the works for which commenced in 1666, were resumed in 1667, and have answered the great ends proposed ever since 1682, will ever do honour to the memory of Lewis XIV. his able minister Colbert, and to Riquet the engineer, who conducted this amazing work. As this work is not much known here, I shall digress into a short account thereof, from a celebrated performance *, from which, all the difficulties considered, our present undertakers of inland navigations may reap spirit and fortitude, to stem all the difficulties that may occur in their patriotic labours, when they survey what unabated industry and ever availing perseverance have produced in a neighbouring kingdom.

" The hill of Naurouse, which is considerably nearer to Thoulouse than to Narbonne, was pitched upon as the most proper place from whence to draw two canals; one whereof was to fall into the Garonne, and the other into the Mediterranean. M. Riquet made choice of a place upon this hill, that was raised 600 feet above the level of those two waters, from whence he observed that the ground

* Nature Displayed.

lay

lay ſlanting down, almoſt in one continued deſcent to them on each ſide. Upon this ſpot he endeavoured to make a large collection of waters, in order to diſtribute them into the two canals; one whereof was to deſcend to Thoulouſe, and the other to fall into the Mediterranean. Though there was but one ſpring at Naurouſe, and that inſufficient to anſwer the end propoſed, yet he brought thither from the adjacent mountains *, by virtue of an aqueduct or conduit, of about five leagues in length, a current of water between five and ſix thouſand inches both in breadth and depth; which ſtream being diſtributed in the two canals laſt mentioned, forms in every part a body of water of above a million of cubic toiſes †. In order to be guarded againſt any accidental drought, he cauſed a long reſervoir to be dug near Naurouſe, which contained above 600,000 cubic toiſes of water, and was reſerved to ſupply the ſource of diſtribution in caſe of a dry ſeaſon. In ſuch places where the land lies upon a deſcent, the water is pent up in large ſluices, between 20 and 30 feet in breadth, incloſed on each ſide by two high walls, that run parallel one to the other; and by a pair of ſubſtantial gates. As the water falls down from the upper ſluices into the lower, it forms a grand caſcade, and ſtrikes the eye of the ſpectator with wonder and delight. We'll ſuppoſe a veſſel in its paſſage from Narbonne, after it has ſailed through the canal that runs along the plain, arrived at the foot of one of theſe ſluices: the gates are inſtantly flung open; the water, ſo hemmed in, as aforeſaid, ruſhes forth with an impetuous force; and blending with that in the canal, forms one

* The Robine or channel, that conducts the waters from the back mountains to the ſource of diſtribution.

† A meaſure conſiſting of ſix feet, or a fathom.

common

common level. Upon this, the bark falls into the sluice, and the gates are shut up again. The water which descends from the upper sluice, rises by slow degrees, several toises; the vessel accordingly rises with it, till it comes to a level with the water contained in the second sluice, by means whereof a bark that is coming from Narbonne may pass, without any obstruction, out of the first sluice into the second; or, one coming from Thoulouse, may be introduced out of the second into the first. The gates of the second sluice being shut, the vessel in the same manner mounts into the third: and thus it ascends from sluice to sluice, till it comes to the source of distribution, and then, by the same sort of conveyance, falls down to Thoulouse. The channel, from the place where it empties itself into the port of Cette to Thoulouse, is at least 70 leagues long. They were frequently reduced to the necessity of turning and winding it to preserve the level, to fortify it with piles in those places where the earth gave way, to convey it over bridges and stone arches, in the vallies; to lay some mountains level with the ground, and cut a passage through others, and arch them over for the reception of its waters. Above 2,000,000 of cubic toises of earth, and more than 5000 of solid rocks, have been hollowed for the preparation of its bed: one hundred and fourteen sluices have been erected for the ascent and descent of vessels; sixteen prodigious mounds have been raised to divert such waters as might any ways obstruct their passage, and twenty four spacious drains to empty the canal, upon any apprehensions of its being too much embarrassed or overcharged with mire and sands. Upon a moderate computation, we are informed that there are above 40,000 cubic toises of stone work in these erections, together with a projection into the sea of 200 toises,

 and

and a pier of 500, which at present secures the port of Cette, and renders it a very safe and commodious harbour: which, as the coast of Languedoc has no havens at all, and is very dangerous, is so much the more advantageous. The expence of this stupendous work was nothing, compared to the advantages reaped therefrom."

Peter the Great, czar of Muscovy, amongst his other grand designs, had planned a navigation for conveying all the rich goods of Persia, to his new city of Petersburg. They were to be first transported to Astracan, through the mouth of the Volga; from thence, by a conjunction of canals into the river Don; by another conduit into the Occa, and from thence to Moscow, by the river Mosca: afterwards, by several other channels of communication, through the Dwina to Archangel, on the White Sea, and lastly through the lake Ladoga, which lies at the foot of the gulf of Finland, to Petersburgh. But alas! the death of this great man prevented the perfect accomplishment of this noble undertaking, which would have made Petersburgh, perhaps, the most populous and best place of traffic in the world.

But not to confine myself to Europe, let it be remembered that the extensive empire of China, whose policy in many particulars is well worth attending to, owes the greater part of its riches and fertility to those numerous canals, so useful for the transportation of the produce and merchandize of one province into another. They are bordered with keys of free stone, and in low, marshy places, they have raised very long causeways for the conveniency of travellers. Innumerable canals are also cut through all their lands, from the many rivers, lakes, rivulets,

rivulets, and torrents with which that country happily abounds. These canals have bridges over them, of three, five, or seven arches, to open a free communication with the country: the middle arch is generally very high, that barks may pass under it with their masts standing. The principal canals discharge themselves on the right and left into divers other small canals, which are divided again, into a great many rivulets, which are conducted to different large towns, and very considerable cities. But the great canal, called the Royal Canal, which is three hundred leagues in length, is without comparison; which, at infinite expence, and with amazing industry, is carried on through many provinces, upon which all the riches of the south and north are conveyed, and by its communication with other canals and rivers, the Chinese can travel or convey goods, very commodiously, from Pekin, the capital, to the farthest part of the empire, being about 600 leagues, by water: they commonly have a fathom and an half of water in this canal, to facilitate their navigation: when the water is high and like to overflow the neighbouring fields, they take care to open the sluices to convey it away, and to keep it at a certain height in the channel: there are inspectors appointed to visit the canal continually, and workmen to repair the damaged places.

But to return from this long, though not unnecessary digression: by inland navigation the greatest benefits arise to trade and commerce; as it much lessens the price of carriage, opens a ready communication from one part of the kingdom to another, as has before been observed, and from every one of those parts to the sea; by which the products and manufactures of the kingdom in general will be afforded at a moderate price; as every manufacturer who

[Brindley] Hist of Inland Navigation Lond. 1766, Thoundes

who can lay in his raw materials, will have, thereby, food and fuel cheap, and carry their manufactured goods to a proper market at a smaller expence, whereby they may sell them at a moderate rate, and ever have the preference there, where undue influence, or imposts do not hinder them. These inland navigations highly benefit the manufactures where they are established; occasion the establishment of many new ones, in situations where the land, before, could be of little value and bare of inhabitants, chearing and enlivening every district where they have been established, and adding riches and fertility in every part through which they are extended. I say fertility, because it is well known that every meadow or pasture in the neighbourhood of refreshing streams, displays a verdure which is not to be discovered in those dry, withered and adust spots which do not lie near the banks of a river or running waters. The cattle and horses in the pastures on the banks, are fatter, more delicious in taste, afford, in greater quantities, and of a better quality, that salubrious tribute which forms the delicious productions of the dairy; and the horses are fitter for labour, or to contribute to the sport or pleasure of their possessors. Sheep, indeed, are excepted, who thrive best in a dry soil. Inland canals, for the purposes of navigation, in great measure supply the deficiency of rivers or streams which nature has denied to a country, and in a remarkable degree serve for a secondary, though very important purpose: trees and plants receive their nutriment, as is incontestable, from their leaves as well as their roots, and the dew of the night diffuses on the leaves an humidity which they imbibe and distribute through the whole plant, the weight whereof, at such times, as Dr. Hale has observed, is considerably increased: This necessary humidity is principally

cipally produced by the rivers or canals in the vicinity; which exhaling from them in mists, is transported by the winds to descend in refreshing dews, not only on such places as are adjacent, but on such likewise as are at some miles distance; so that hereby arises one great benefit from inland navigations, that perhaps has not been enlarged upon before.

It is not to be disputed, that these inland navigations greatly benefit also the merchants who reside at the ports where they terminate; for they are thereby enabled to export greater quantities of goods from those parts which lie at a distance from the sea, and to supply a larger tract of country with their exports from abroad.

The navigations of the Are and Calder, in Yorkshire, will elucidate the great utility of inland navigations, in the increase of established manufactures, and in the setting up of new ones. And it is well known, that the navigations to Manchester and the salt works in Cheshire, have contributed to the present flourishing state of the port of Liverpool. That inland navigations benefit greatly the landed gentlemen cannot be denied, as in many instances their lands have been improved to tenfold value. Without this artificial communication, corn, timber, iron, coals, stone, &c. would be of little use to the landowner, which the cheapness of carriage, now, will enable him to transport to a profitable market. They occasion the discovery of mines and minerals, which would be else useless to the owners; they aid the cultivation of poor, barren, and waste lands; they contribute to the stability and permanency of the public roads; as the navigable canals prevent the burdening them with vast quantities of heavy goods,

which do them most injury; so that, from this relief they may become the finest roads in Europe.

The construction and working upon these inland navigations, must of course be the cause of employing vast numbers of our poor; besides that, when they pass through corn countries, near collieries, &c. the poor labourers are more readily furnished with food, and fuel is provided for their solace, and to carry on the manufactures that stand in need thereof; and surely when we consider the various distresses our poor, consequent to their situation, labour under, too much praise cannot be bestowed upon those benevolent beings who, by means of these inland navigations, render their lives more comfortable and happy.

I remember but one objection to inland navigations, that is not answered in the succeeding pages, viz. that they waste or take up too great a portion of land, in the countries through which they pass; but it will be a full and cogent answer to this objection just to observe, that *one mile* of the duke of Bridgwater's navigation takes up only *an acre and half* of ground. To conclude, it would be happy for this country, if private interest, prejudice, ignorance or obstinacy were not employed to discredit such patriotic undertakings, as must redound so greatly to the honour and welfare of the kingdom: but such is the tax ever laid upon attempts for the public emolument; let them be proved ever so salutary, by the most convictive and forcible reasons, some opposition will be made, if it only flow from the natural vanity or malevolence of mankind. But it is time, in the present critical circumstances of the nation, when rivals in trade and manufactures are taking every advantage over us, when enormous taxes,

 and

and the advanced prices of the necessaries of life oppress our manufacturers and our poor; that we unite as one man in promoting those designs, which will contribute to raise our drooping commerce, to find employment for our labourers, and enable us to bear the burden of our numerous taxes with some degree of chearfulness and patience: by which we may once more raise up our heads, and recover what we have lost. Let us say, at least, in the language of the poet,

'Tis not in mortals to command success;
But we'll do more, (my brethren) *we'll deserve it!*

ACCOUNT

ACCOUNT OF THE DUKE OF BRIDGWATER'S NAVIGABLE CANAL, etc.

IN the session of parliament, in the years 1758 and 1759, his grace the duke of Bridgwater obtained an Act, for enabling him to cut a navigable canal, from Worsley to Salford, near Manchester, and to carry the same to or near Hollin Ferry, in the county of Lancaster.

Soon after the passing this Act, his grace begun his works, and made a navigable canal from Worsley Mill, to the public highway leading from Manchester to Warrington; but it being then discovered, that the navigation would be more beneficial, both to his grace and the public, if carried over the river Irwell, near Barton bridge, to Manchester; his grace applied again to parliament, to vary the course of his canal accordingly, and to extend a side-branch to Longford bridge, in Stretford, and obtained an Act for that purpose.

The making a navigable canal over the river Irwell, and filling up the hollow of low ground on the north side of this river, were esteemed to be a very arduous undertaking, and, by most persons who viewed the chasm, thought to be impracticable; but his grace being well supplied with materials from his own estate, hath already compleated this, which

was

was looked upon as the most difficult part of his undertaking, and hath now carried it into execution.

By the first Act, a rate or duty, not exceeding 2*s.* 6*d.* *per* ton, was granted to the duke as a recompence for the charges of making and compleating his navigation; and the second Act varies the course of the canal, and extends it, but makes no alteration with respect to the tonage.

The duke, upon a further survey and taking levels, found it practicable to extend his canal from Longfordbridge, by Dunham, to fall into the river Mersey, at or near a place called the Hemp-Stones, below Bank-Quay, and so as to bring vessels into his canal at the lowest neps-tides; and having obtained a third Act for that purpose, undertakes this at his own expence, without any addition or increase to the tonnage.

[If navigations are advantageous to a country, that advantage must increase in proportion to their extent and the intercourse and connections with the parts with which they communicate; and, allowing this to be a fact, there certainly cannot be a more interesting consideration than the facilitating the conveyance of goods and merchandize, between the great trading towns of Manchester and Liverpool.]

It may not be improper here, to give a clear abstract of the acts of parliament above mentioned.

Act 1. Recites in the preamble, that the persons named in Act 10 Geo. II. *for making navigable the river or brook called* Worsley Brook, *from* Worsley Mill, *in the township of* Worsley, *in the county palatine of* Lancaster, *to the river* Irwell, *in the said county*, have hitherto neglected to carry the said Act into execution, &c. And that a cut or canal may be made from a certain place in the township of Salford, &c. near Manchester, in the said county of Lancaster, to or near Worsley Mill, aforesaid, and

Middle-

Middlewood in the manor of Worſley, and to or near Hollin Ferry, in the ſame county; and ſupplied with water from the ſaid Worſley Brook, and other brooks and places near, &c. &c. ſufficient for floating or carrying of boats, and other veſſels of conſiderable burthen, by which the conveyance of coals, timber, ſtone, manure, goods, wares and merchandizes to and from Mancheſter and Salford, &c. &c. will be greatly facilitated, &c.—The Act impowers his grace the duke of Bridgwater, his heirs, &c. to make and maintain the ſaid cut or canal at his or their own proper coſts and charges; to enter lands, dig and remove obſtructions, and then to make towing-paths on the ſide of his canal, gutters and water-courſes, locks, ſluices, &c. &c. weighing beams, bridges, arches, &c. for ſetting up poſts, rails, &c. firſt making ſatisfaction to the owners of, or perſons intereſted in, ſuch lands or grounds, &c. &c. No water to be taken out of the river Irwell into his cut or canal: power is given to ſurvey and ſet out lands, and all perſons impowered to convey ſuch lands to the duke. But the lands ſo to be ſet out, ſhall not exceed ſixteen yards in breadth, except, &c.—No wharfs to be made between Salford and Barton Bridge, without the conſent of the owners of the lands. Commiſſioners are named to determine differences, &c. &c. between the duke and the proprietors of lands, &c. &c. to ſettle recompences: if parties will not ſubmit to their determination, (i. e. of any ſeven of them) refuſe to accept the purchaſe monies, &c. or to treat; or ſhall not agree, juries may be impannelled to aſſeſs the purchaſe monies, &c. Penalties are 20 *l.* for the Sheriff or coroner; 5 *l.* for every juryman, and perſon ſummoned who ſhall make default, to be levied by diſtreſs and ſale of goods.—The commiſſioners may ſettle the proportions of the monies to

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be paid to the ſeveral perſons intereſted, with an exception ——Determinations, verdicts, and judgments to be kept by the clerk of the peace; and if the ſum given by the jury be greater than that ſettled by the commiſſioners, then the duke to pay the expences of ſuch jury. —— Upon the payment of the ſums aſſeſſed, the lands, &c. to veſt in the duke;—and in default of payment, the ſums aſſeſſed to be recovered, with full coſts of ſuit, by action of debt, againſt the ſaid duke, his heirs, aſſigns, &c. wherein no eſſoign, protection, privilege, wager of law, or more than one imparlance ſhall be allowed. If coſts and damages are not paid in three months, to be levied upon the duke's coals or boats ——The works done in purſuance of this Act not to be ſubject to the ſewer laws. The coals from the duke's mines, not to be ſold for more than 4 d per hundred, at Manchester or Salford. Qualification for a commiſſioner or juryman, 50 *l.* per ann. freehold, or 1000 *l.* perſonal eſtate, after payment of all his juſt debts. The duke to fence the towing paths, from the adjoining lands, erect bridges, &c. or on neglect, the commiſſioners to do it, and levy the charges. Houſes not to be taken down, or timber cut, &c. except ſuch as are aſcertained for the purpoſes of the Act.—The next clauſes relate to the election of commiſſioners in the room of ſuch as die or refuſe to act, and regulates their meetings. Purchaſe monies for lands, &c. in ſtrict ſettlement, to be placed out in government funds, &c. &c. Felony for any perſon to deſtroy or damage the works. The writings in purſuance of this Act to be exempted from the ſtamp duties, and no proceedings taken in purſuance thereof to be quaſhed for want of form. The navigation to be free, upon payment of the tolls. The duke, &c. impowered to fix the tonnage rates, which

which are not to exceed 2*s.* 6*d.* per ton, and rates neglected to be paid may be sued for or levied, and a farther allowance is to be made for goods remaining on the wharfs above 24 hours. The owners of lands, &c. to have free liberty to carry dung by the canal to their lands. Rights of lords of manors saved, and owners of vessels to be responsible for their servants. Vessels lying so as to obstruct the navigation to be removed, and sunk vessels to be weighed up. The next clauses direct the manner of collecting and ascertaining the tonnage rates, the management upon differences, &c. Any person throwing ballast into the canal to forfeit 20*s.* Persons giving false evidence in the premises, to be prosecuted and punished as persons guilty of wilful and corrupt perjury. The proceedings of the commissioners to be registered, and a clerk appointed. The next clause directs the recovery and application of penalties: persons aggrieved may appeal to the quarter sessions for the county of Lancaster. The commissioners may act as justices. The former Act mentioned in the preamble is repealed; actions brought on this Act must be commenced within six calendar months after the offence, the party convicted is to pay treble costs, and the Act is to be deemed a public Act.

Act 2. Enables his grace, at his own expence, to make a navigable cut or canal from or near Worsley Mill, over the river Irwell, to the town of Manchester, and to, or near, Longford Bridge, in the township of Stretford, in Lancashire. The powers of the former Act are extended to this, but the breadth of the canal and towing paths not to be limited. Power is given to make arches over the river Irwell, at Barton Bridge; but the navigation of the said river is not to be obstructed, provided the proprietors of the navigation of the said river do not open locks for longer time than necessary. The

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canal, arches, &c. to be the property of the duke. The duke's works not to be carried nearer the buildings of Mr. Lloyd, of Hulme, near Manchester, than 30 yards, &c. Nor is he to erect wharfs, &c. in Quay-street, Manchester, or upon Mr. Byrom's lands, except as excepted. Tolls to be paid on Crossford Bridge road, so as the same does not extend to a double charge; and coals which have been navigated on the canal, shall pay at the turnpikes only one moiety of their tolls or duties, granted by the Act 24 Geo. II. at such turnpikes as are erected in virtue of that Act. The trustees of that road may compound with the duke for the carriage of coals thereon. The duke to maintain the bridges over the canal, where it crosses the turnpike road. The lords of manors rights are reserved, and the Act declared a public Act.

Act 3. Enables the duke to make a navigable cut or canal from Longford Bridge, in the township of Stretford, in Lancashire, to the river Mersey, at a place called the Hempstones, in the township of Halton, in the county of Chester. The two former Acts are recited; and as the canal is capable of being extended, &c. (as above) power is granted to the duke to extend it at his own proper cost and charges, to remove obstructions, and to make arches and other works on the Mersey, and other works, bridges, roads, &c. Commissioners are named, their power settled (as in Act 1.) and their meetings. Flower, &c. which had paid toll before grinding, not to pay it again. Persons evading the payment of the toll forfeit 40s. for every offence, to be recovered as in the first Act. No corn mill to be erected on the canal or towing paths. The duke not to divert certain water-courses or streams of water therein mentioned; and a recompence to be made for using antient streams, which communicated with the rivers Mersey and Irwell. The next clauses direct

rect the application of forfeitures, and give the ſame power to the juſtices of Cheſhire, as were, by the firſt act, given to thoſe of Lancaſhire. The tonnage duty to be taken, not to exceed 2 *s.* 6 *d.* per ton, and the ſame may be paid for, &c. and no higher duty to be taken upon the navigation than is authorized by the former Acts. No toll to be taken for manure, or for ſtones to repair the highways. The duke to make weirs, before the boats paſs through the locks. The next clauſe directs, that drains, &c. ſhall be made into the canal, to convey the water from the lands adjoining, and how they ſhall be maintained. The next, impowers bodies politic, &c. to ſell, or convey in exchange, lands for the uſe of the navigation. Trees nor buildings to be ſet or erected on towing paths, except as excepted, without conſent. The next clauſe impowers owners of lands, near the navigation, to make wharfs, quays, &c. on their own lands. The next limits the breadth of the canal and towing paths, as in the firſt Act. No more than 6 *s.* per ton to be taken for the carriage of goods between Mancheſter and Liverpool. Lands to revert to the original proprietors if navigation not made through them in ten years, or if made and diſcontinued in five years. The powers of the former Act extended to this. The works not to be carried through lord Stamford's park without conſent, nor nearer the houſe of the Rev. Mr. Halſtead, in Lym, than 50 yards. In an action in any court on this Act, no eſſoin, protection, &c. &c. nor more than one imparlance ſhall be allowed, and the Act to be deemed a public Act.

By the above abſtracts it will appear how cautiouſly the legiſlature guarded againſt the infringement of public or private rights, or treſpaſſing upon private property. The Acts are explicit, and full proviſion is made againſt any difference that could at

firſt, or may hereafter ariſe between the duke and other perſons concerned.

Whilſt this navigation ſcheme was on the carpet, much oppoſition was made by the proprietors of the navigation on the Irwell and Merſey, which gave riſe to theſe queries, tending to ſhew the diſparity between the two navigations.

WHETHER it is not upwards of forty years ſince the proprietors of the old navigation obtained an Act for making the rivers Irwell and Merſey navigable?

Whether boats can now paſs between their loweſt lock and Liverpool, without the aſſiſtance of a ſpring tide?

Whether there are not many fords or ſhallows in it, where boats cannot paſs, except in great freſhes, or by drawing extraordinary quantities of water from the locks above?

Whether the difficulties and delays attending the uſe of the old navigation, do not ariſe from defects in the conſtruction of it, for want of more locks, and not from a ſcarcity of water?

Whether the new intended navigation will not be nearer by nine or ten miles than the old one?

Whether boats will not be able to paſs at all times upon the new intended navigation to and from Liverpool, in the wetteſt or drieſt ſeaſons, without obſtruction?

Whether there are not upwards of forty tons of goods per week (which will be upwards of 2000 tons per Annum) now carried by land between Mancheſter and Liverpool, at or near the expence of 40*s.* per Ton?

Whether the freight and tonnage upon the old navigation from Liverpool to Mancheſter does not amount to 12*s.* per ton, and from Warrington to Mancheſter to 10*s.* per ton?

Whether

Whether goods may not be carried, by means of the new intended navigation, from Liverpool to Manchester, for 6*s.* per ton, and in as short a time, and as certain in the delivery, as by Land-Carriage?

Whether, to encourage the repair of the highways, paving stones and gravel are not proposed to pass upon the new intended navigation, toll-free?

Whether there are any wharfs or quays for landing or securing goods for the use of the public, between Manchester and Warrington?

Whether any quantity of coals, or other goods, have been carried upon the old navigation higher than Warrington Bridge, to supply any part of the adjacent country? And whether, if tonnage upon that river was to be totally remitted, the expence of freight alone would not amount to an exclusion of coals?

Whether, besides the benefit to the trade of Manchester and Liverpool, the new navigation will not produce very great advantages to a considerable part of the county of Chester, in the conveyance of coals and other goods, which are now carried by land for a great number of miles, and cannot be conveyed upon the old river?

Whether the proprietors of the old navigation did not refuse to take any less tonnage from the duke than 3*s.* 4*d.* for coals and other goods passing upon it between Barton and Manchester, before his grace attempted to make a separate navigation?

Whether, after the duke had obtained his first Act, the proprietors did not voluntarily offer his grace the use of their navigation for six-pence per ton, as an inducement to him to communicate his canal with their river? And whether they have not since received from his grace the full tonnage of 3*s.* 4*d.* for considerable quantities of timber, plank,

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and other things, which he has conveyed upon their river for the uſe of his navigation?

Whether the ſprings of water diſcovered and brought by the duke's ſoughs out of his own eſtate, may not be deemed his own property, and diſpoſed of as he ſhall think fit?

Whether in making the computation of the ſavings to the public of 10 *d.* per ton (being the amount of the reduction of tonnage by the new navigation) there is not a fallacy, as the freight, and not the tonnage, is the great object?

Whether the preſent freight and tonnage upon deal balks, planks, and many other things, between Liverpool and Mancheſter, does not amount to 20 *l.* per cent. or upwards upon the value at Liverpool? And whether the reduction of tonnage and freight to half its preſent price will not greatly increaſe the conveyance of oak timber, north country ſlate, and many other things, and afford a very ſenſible advantage to thoſe two great towns?

Whether the proprietors of the old navigation do not receive a tonnage * for goods conveyed upon the river Merſey, between Warrington Bridge and Bank Quay? And whether they have made, or attempted to make, any improvement upon the navigation on that part of the river?

Whether the public is not likely to be better ſerved by having two navigations to reſort to, rather than one?

Whether the legiſlature, by the Act paſſed forty years ago, intended to grant to the undertakers a monopoly of the water-carriage in that part of the country? And whether the public ſhall continue to

* To the word tonnage here might have been added or wharfage; becauſe in the charge they make they call it wharfage, though no landing on them, but as they take the quays. The foundation of their claim is grounded on their own Bill.

labour

labour under all the disadvantages attending a bad navigation, or receive the benefit now offered them, of a free and open navigation at all times, for the conveyance of goods, in a much shorter time, and at half the present expence of water carriage, and one sixth part of the present expence of land carriage? And whether, besides the certainty and expedition in the delivery of goods, it will not be the means of extending the trade, and a saving of many thousand pounds a-year, to the public.

OBSERVATIONS
on the proposed
NAVIGATION.

The river Mersey, by its communication with the Western Sea, is by nature navigable, in spring-tides, from Liverpool to Warrington-bridge.

By an act of parliament, passed in the year 1720, certain undertakers were empowered to make the rivers Mersey and Irwell navigable from Liverpool to Manchester, and to take a tonnage of 3 s. 4 d. per ton for all goods navigated between Bank Quay (being near three miles below Warrington bridge) and Manchester.

The freight and tonnage upon those rivers, between Liverpool and Manchester, is 12 s. per ton; and between Warrington and Manchester 10 s. per ton.

The town of Manchester being supplied with coals by land-carriage, at the expence of from 9 s. to 10 s. per ton upon a medium, and there being no communication by water, from any collieries to the rivers Mersey or Irwell above Warrington, the duke of Bridgwater, who has considerable coal mines in his estate at Worsley, about four miles north

north of the river Irwell, hath been enabled, by two acts of parliament, passed in the years 1759 and 1760, to make a navigable canal from Worsley mill to Manchester, and to extend a branch of it to Longford bridge, (about three miles from Manchester, upon the great road between that town and Cheshire) and to take a tonnage of 2 s. 6 d. per ton.

The applications for these Acts were supported by petitions from several parts of the country; the public utility of the undertakings never controverted, and the practicability is fully evinced, by compleating the navigation from Worsley over the river Irwell to Longford bridge, and within two miles of Manchester.

The duke is now proceeding in the further execution of the navigation; and, in order to drain and convey his coals from the mine, is driving up a subterraneous sough upon the level of his canal, which communicates with it, and carries boats of six or seven tons burden.

It is found, upon proper surveys, to be practicable to extend this navigation from Longford bridge through a populous part of the county of Chester, to communicate to the river Mersey at the Hempstones, above eight miles below Warrington bridge, from whence there is a natural tide navigation to Liverpool; and the duke is willing to make this extension, without any further tonnage than the 2 s. 6 d. granted by the former Acts: but to this scheme many objections have been made.

Objection I.

That the land-owners will suffer by having their lands cut through and separated, and that a great number of acres will, by this new navigation, be covered with water, and for ever lost to the public.

Answer.

Answer.

Full compensation is to be made for all lands before they can be used for the purposes of the bill, and for all consequential and unforeseen damages; and the duke is obliged to provide proper bridges, and other conveniencies, for the accommodation of the owners and occupiers of lands.

With respect to the loss of lands, by a number of acres being covered with water, whoever knows the great extent of moss and barren land through which the intended canal is to be cut, and has seen the methods practised upon the duke's canal, already finished, by back-drains and aqueducts made under the canal, will be perfectly satisfied, that the lands in general will be drained, and greatly improved, and the back drains will entirely prevent any prejudice from the ouzing through the banks; and satisfaction for any particular and temporary damage, it is presumed, is fully provided for: and the admission of all sorts of manure tonnage free, will furnish an additional means of improvement to the land-owners.

Objection II.

That there is no necessity for this new navigation, as the old one upon the rivers Mersey and Irwell is compleat, and sufficient to answer all the purposes of the public, and to carry more goods than the present trade will supply.

Answer.

The old navigation is very imperfect, expensive, and precarious, as no vessels can be brought up from the Hempstones into their first lock above Warrington bridge but at spring-tides, there never having been any attempt to improve that part of the navigation; and between that place and Manchester there are many shallows, which it is very

difficult to paſs with loaded veſſels, and in times of floods the whole is impaſſable.——Theſe defects occaſion great delays and uncertainties in the delivery of goods, which are very inconvenient to trade, and lay the merchants under a neceſſity of ſending very great quantities of goods weekly between Mancheſter and Liverpool by land-carriage, at the expence of 30 s. or 40 s. per ton.

The duke's new intended navigation will be above nine miles nearer than the old one, and paſſable at all times, there being a ſufficiency of water at the Hempſtones to bring up boats of 40 or 50 tons burthen at the loweſt neap tides; the paſſage from thence to Mancheſter will be eaſy and ſecure, as there will be no ſhallows or ſtreams to contend with, or floods to obſtruct it; and by means of this navigation, goods will be carried from Mancheſter to Liverpool for 6 s. per ton, including freight and tonnage; which, beſides the great advantage of expedition and certainty in the delivery, will ſave one half of the preſent expence, upon all goods carried by water between Liverpool and Mancheſter, (that is to ſay, at the rate of 6 s. inſtead of 12 s.) and above four fifth parts of the preſent expence upon that great quantity of goods now neceſſarily carried by land, (that is to ſay, at the rate of 6 s. inſtead of 30 or 40 s.) and be the means of conveying many uſeful commodities, ſuch as coal, timber, ſlate, ſtone, and many other things of ſmall value, which cannot afford ſo great an expence as 12 s. per ton.

Objection III.

That the new navigation runs parallel with, and in many places very near, the old one, and can therefore extend no advantage to the public but what they already receive from the old navigation.

Anſwer.

Answer.

The old navigation affords little or no advantage to the country through which it runs, the freight and tonnage being so heavy, and the course of it being in deep low ground, accessable but in few places, and there not being a wharf or quay between Manchester and Warrington bridge, which is upwards of 26 miles by water.

Although the duke's navigation may, in some parts, run parallel with the old one between Manchester and the Hempstones, yet, for the greatest part of its course, it will be two, three, or four miles from it, and the communication with the adjacent country more easy, as it will be made on higher ground than the old navigation, and cross many public highways which do not lead to it, and will save a land-carriage of nine or ten miles for many hundred tons per week, passing between Cheshire and Manchester.

From Worsley to Altrincham, the new navigation will lie in a different direction to the old one, as it will be carried over the rivers Irwell and Mersey, and will save a land-carriage of many thousand tons of coals every year, for upwards of thirteen miles, through bad roads, to supply the inhabitants of that part of the county of Chester, which borders upon the county of Lancaster.

These are advantages which the country can in no wise receive from the old navigation.

Objection IV.

That the water which is to supply the new navigation, is proposed to be taken from the old rivers, and will be a great prejudice, if not a total obstruction of the old navigation in dry seasons.

Answer.

The duke cannot take any water, either from the Irwell or Mersey, into his navigation, as both those rivers lye considerably below the level of his

preſent and intended canal.——His Grace's preſent canal is chiefly ſupplied with two ſtreams of water flowing from ſprings cut by him and his anceſtors in the bowels of their eſtate, by driving up ſoughs to drain the mines, and the waters from thence are ſtill increaſing by the progreſs of the works, the deepeſt of thoſe ſoughs being now carrying on with great expedition; which waters, it is apprehended, may with great propriety be called his own, and which at preſent will be ſufficient to fill upwards of 18 locks in 24 hours, being many more than is requiſite to anſwer all the trade that the country can poſſibly ſupply on both navigations.

By meaſuring and comparing the quantities of water uſed in the old and new navigation, the diſproportion will appear ſo great, that if the quantity uſed in the new one was to be added to, or diverted from the old one, it would not vary the perpendicular depth a fortieth part of an inch, and could make no ſenſible difference in the navigation of veſſels; at the drieſt ſeaſons the waters from the duke's ſoughs and ſprings producing above 66 cube feet per minute, and the waters in the Irwell and Merſey producing, in the drieſt ſeaſons, 7700 cube feet per minute, as appears from the moſt accurate meaſures and obſervations which have been taken.

But in order to preſerve a due circulation of water in the canal, and to ſupply any loſs which may be ſuſtained by leakage in the courſe of that work, it is proper that power ſhould be given to the duke to make uſe, if neceſſary, of contiguous ſtreams. Yet the exerciſe of this power cannot be detrimental to the old navigation, as ſuppoſing no leakage, the waſte waters, which by the bill are directed to be turned into the river, will not only be equal to the ſtreams and waters ſo taken in, but encreaſed

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by the above ſurplus of the water produced by the ſoughs and ſprings; and all this water will be alſo let off into the river at as high, and in moſt caſes a higher level than the ſtreams and waters, if not ſo diverted, would in their natural courſe fall in. And ſuppoſing a leakage, yet the old navigation cannot be prejudiced, as the water carried off by ſuch leakage will naturally find its way into the bed of the river; but as the duke is deſirous that every neceſſary proviſion ſhould be inſerted in the bill for obliging him to make a full and ample ſatisfaction to the proprietors of the old navigation, and all other perſons, for any damage they may ſuſtain by the loſs of the water to be ſo diverted; it is apprehended, there cannot remain the leaſt ſhadow of an objection.

Objection V.

That as the proprietors of the old navigation have advanced large ſums of money, and as they undertook it upon the faith of parliament, they have acquired ſuch a property in it as ought not to be taken from them, without a full compenſation.

Anſwer.

The parliament, in paſſing the act for the old navigation, had only in view the advantage of the public, and could not mean to give the undertakers an excluſive right to this mode of carriage, if a better and more advantageous conveyance could be afterwards found.——The undertakers were voluntary adventurers: they were for many years diſappointed in their expectations: ſeveral who had advanced money thought proper to forfeit the ſums paid, rather than hazard a further diſburſement; and others, who had compleated their payments, amounting to about 41 l. per ſhare, ſold out at 12 l.——At laſt, a ſort of navigation was compleated, after eighteen years had elapſed: a navigation

gation tedious, expensive, and liable to great interruption: a navigation in which the hopes of the legislature, and the expectations of the public, and the undertakers, were in a great measure baffled: a navigation; the defects whereof a turnpike road was made to supply.——Meritorious as the first design might have been, the difficulties in the execution, and in the use of it, plainly demonstrate it to have been a mistaken, or an ill executed scheme, And is the public to be denied a more expeditious, safe, and, in every respect, a better navigation, because this was attempted? and not to have the advantage of carriage for 6 s. per ton, because the proprietors of the old navigation cannot carry for less than 12 s.?

Though they have been in possession of this river above 40 years, and the use of the navigation above 20 years; and though they are in the greatest apprehension of ruin from the proposed scheme, (the strongest proof of its utility) they may, if that scheme was to take effect, have 30 l. for every share, that originally cost about 41 l. And if their dividends have not, in so many years, made up to them considerably more than the difference, with the interest upon the whole, it is submitted, If that is not a very striking proof, that their undertaking has been of very small importance in this manufacturing country.

The creditors upon turnpike acts are adventurers, with respect to the money advanced, in the same manner as the undertakers of navigations.—They are merely adventurers, without having the advantage of making the roads in the cheapest manner, placing the turnpikes, or collecting the tolls, and without any chance of benefit from the increase of trade. They hazard the whole, and can only receive a certain stipulated interest, with the principal.——

pal.——The undertakers of navigations have the direction of the works, the collection of the tonnage, and all the advantages that may arise from an increase of carriage.——At the head of artificial navigations, made under the authority of parliament, warehouses have been erected, and wharfs provided, at a great expence, for the benefit of navigation: and yet parallel turnpikes have been made, whereby the security of the creditors of the former turnpikes have been much endangered; and navigations have been extended, whereby such warehouses and wharfs have been in a great measure rendered useless, without any compensation being directed to be made by parliament, for any damages they might sustain by the execution of those new laws, calculated for the benefit of the publick.

This mode of navigation is new in its kind; and, from the experiments already made, carries the most promising appearance of success; and may, if the completion thereof is allowed, be the means of introducing into many other trading parts of the kingdom, a more easy, cheap, and expeditious conveyance than can otherwise be obtained.

New schemes and proposals have, from the novelty of the thing, or the local and particular interests of private persons, frequently met with difficulties and obstructions: but it is unnecessary to enumerate the great advantages that have accrued to the trade and commerce of this kingdom, from the attention and encouragement the legislature hath, for many years, given to every attempt where public utility was the object.

During the dispute, a merchant in Warrington wrote as follows, addressed

TO

TO THE PUBLIC, AND PARTICULARLY TO THE GENTLEMEN AND TRADESMEN AT WARRINGTON.

The eſteem and value I always entertained for the commercial intereſts of our country, are motives ſufficient to juſtify me, for addreſſing you in this public manner, and (eſpecially) upon an affair, wherein we all ſtand immediately intereſted.

We ſee (amidſt the horrors of a long and expenſive, yet ſucceſsful war) our wiſe legiſlature, ſtill attentive to the inlargement of our trade, and ever ready to forward all proper means for its future extenſion.

Amongſt the many ſchemes of this nature, (that are now under the conſideration of the honourable houſe of commons) there is none affords the proſpect of greater public utility, than the canal intended to be cut through part of Cheſhire, by his grace the duke of Bridgwater, to fall into the river Merſey, near Runcorn: a deſign this! ſo public ſpirited, that juſtly demands our gratitude and cloſeſt attention; for, if carried into execution and compleated, will certainly (in time) be the means of opening a trade, by an inland navigation, from the Weſtern to the German Ocean, which the preſent age may poſſibly ſee, but poſterity will experience the beneficial effects of, and ſpeak with honour of the noble patriot who firſt commenced the deſign.

But ſuch is the infelicity and waywardneſs of human nature, acting under the influence of paſſion or prejudice, that however laudable the ſchemes propo-

ſed may be, they do not always meet with unanimous approbation, but are often more fooliſhly rejected than wiſely conſidered; for the bulk of mankind (and eſpecially thoſe in power) we often ſee, are blinded and infatuated by ſelf-intereſt, determined to look no farther than the preſent time, to baniſh all regard to poſterity; thus ruining the public weal by obſtinacy or inattention, or the meaner motives of local conſiderations; in ſome of theſe characters we may, however, obſerve deſigning men, who have art and cunning ſufficient to conceal their views, and either by an undue influence, or by deluſive and falſe reaſoning, miſlead and pervert the judgment of others, by pointing out to them the moſt terrible conſequences, that have no other foundation than their own conſcious and guilty fears ſuggeſt.

Something like this ſeems now to be the caſe, and is giving birth to an ill-timed petition, intended to be offered you to ſign, to give it (if not the reality) at leaſt the appearance of popular ſanction, which, if complied with by the public, will afterwards be tranſmitted to the houſe of commons. There is no doubt it will be propoſed, with plauſible arguments, to alarm your fears; but judge for yourſelves, and reject it, for it is ſolely calculated for the intereſt of a junto of the old N——rs, who never ſhewed themſelves in any inſtance (as a connected body) either candid or ingenuous to individuals, or friends to the public, but, on the contrary, oppreſſive in all their meaſures.

Permit me then to remind you to be upon your guard, conſider coolly what you are about, think of men and times paſt, examine whence this petition comes recommended, and you'll find it to be at the appointment (perhaps the modeſt requeſt, or rather, the awful and powerful ſanction) of the truly honourable body of the M——r N——rs.

 I might

I might have spared the compliment, for trees are known by their fruits, and none can be mistaken in their judgments of the uprightness of these gentlemen's intentions; their past conduct bewrays them, the facts are recent, witness their attempt when Sankey-wharf was first erected, their stoppage of vessels and goods on the most base and frivolous pretences, their long extravagant freights, tonnage, wharfage, &c. though of late they have received some little check: but should these men now succeed in the designs they have in view, (flushed in triumph) they will rejoice in public disappointment.

Power therefore, in such hands, is dangerous, and no confidence ought to be placed in persons, whose avowed maxims have always been (for years past) a continued series of oppression and monopoly, a constant invasion of private right and property, an injury to trade by arbitrary and unreasonable burdens, imposed upon the private traders (who latterly have been somewhat eased) but still there are grievances which loudly call for redress, and the present opportunity should not be lost. Suffer me, therefore, (my friends) from motives to the public good, from a regard to our common interest, to request of you not to sign any instrument, that will have the least tendency to render unpopular those laudable purposes the duke hath in view, and be assured that all objections hitherto offered against the new canal, are not upon the general principles by which society (and particularly a trading people) should direct their conduct, but they are founded in self-interested motives and local views, wholly designed for the meridian of the M——r confederacy, and if possible to lull your attention, the better to perpetuate their usual schemes of oppression. Let then this maxim be adopted by you, viz. that every increase

increase of navigable canals through a country, must extend its commerce, by facilitating the conveyance of wares and merchandizes, as well as timber for ships, the basis of our naval strength, and the only means by which our trade must be maintained, therefore cannot fail of being publicly beneficial, not to mention the improvements in agriculture, by inhancing the value of lands, which the gentlemen of that interest would do well to consider.

The arguments offered by the emissaries of the N——rs, against the duke's bill, appear at first view striking and popular, but when considered, are mere chicane and sophistry. The legislature (it is true) granted to the old proprietors, a liberty to make the river Mersey navigable to Manchester; they have endeavoured to do it, though have not compleated the same in its fullest extent, (for what reason the present managers best know) but the legislature did not engage at the same time, that in case of their failure in perfecting the design, every other proposal should be discouraged that would be more effectual; for the end of all bills of this kind, being the public utility; therefore, when the means used have not been conducive to that end, it is not reasonable that the public trade should suffer, because a few individuals have mistaken the object, and to make themselves amends, stretch every nerve of power to oppress that trade, which the design of the first grant was to extend and open.

I flatter myself, that sufficient hath been offered, to influence every disinterested person, from signing any petition for the present, since they (perhaps) will have reason to repent it, especially when (it is with pleasure) I can assure them, that numbers of our friends have determined to unite, and to pursue

ſuch ſteps, as to ſhake off the preſent vaſſalage; by ſeeking effectual means to ſupport the freedom of the natural tide-navigation, we already have, and to claim the ſame, to its old and lawful limits, free and open as nature intended, and what right and equity juſtly demand. This it is to be hoped, will excite your attention, and I truſt will not only merit your warmeſt wiſhes, but the utmoſt exertion of your proper powers for its ſucceſs.

I remain, gentlemen,

Your friend,

Dec. 21, 1761.

PHILO-PATRIA.

A PARTICULAR ACCOUNT OF THE DUKE OF BRIDGWATER'S NAVIGATION.

In a LETTER *to the Printer of the* St. JAMES'S CHRONICLE.

SIR, *Mancheſter, Sept.* 30, 1763.

'Tis not long ſince I viewed the artificial curioſities of London, and now have ſeen the natural wonders of the Peak; but none of them have given me ſo much pleaſure as I now receive in ſurveying the duke of Bridgwater's navigation in this country. His projector, the ingenious Mr. Brindley, has indeed made ſuch improvements in this way, as are truly aſtoniſhing. At Barton bridge he has erected a navigable canal in the air; for it is as high as the tops of trees. Whilſt I was ſurveying it with a mixture of wonder and delight, four barges paſſed me in the ſpace of about three minutes, two of them

them being chained together, and dragged by two horſes, who went on the terras of the canal, whereon, I muſt own, I durſt hardly venture to walk, as I almoſt trembled to behold the large river Irwell underneath me, acroſs which this navigation is carried by a bridge, which contains upon it the canal of water, with the barges in it, drawn by horſes, which walk upon the battlements of this extraordinary bridge. This navigation begins at the foot of ſome hills, in which the duke's coals are dug, from whence a canal is cut through rocks, which day-light never enters. By this means large boats are hauled to the innermoſt parts of thoſe hills, and being there filled with coals, are brought out by an eaſy current, which ſupplies the whole navigation, for the ſpace of about ten miles. At the mouth of the cavern is erected a water-bellows, being the body of a tree, forming a hollow cylinder, ſtanding upright: upon this a wooden baſon is fixed, in the form of a funnel, which receives a current of water from the higher ground. This water falls into the cylinder, and iſſues out at the bottom of it, but at the ſame time carries a quantity of air with it, which is received into tin pipes, and forced to the innermoſt receſſes of the coal-pits, where it iſſues out, as if from a pair of bellows, and rarifies the body of thick air, which would otherwiſe prevent the workmen from ſubſiſting on the ſpot where the coals are dug.

From Barton I ſteered my courſe towards this place, and in my way ſaw the navigation carried ſometimes over the public roads, and in ſome places over bogs, but generally by the ſide of hills; by which means it has a firm natural bank on one ſide, while the other, compoſed of earth and gravel thrown up, is about eight yards broad. At proper diſtances, ſoughs are formed near the top of the canal,

nal, which prevents it from overflowing during immoderate rains.

In ſome places, where Mr. Brindley has been forced to carry his navigation acroſs a public road, being obliged to keep the water on a level, he has ſunk the road gradually, ſo as to paſs under his canal, which forms a bridge over the road; the carriages, by an eaſy deſcent, going down on one ſide, and by the ſame eaſy aſcent, coming up again on the other. Near this town, where Cornebrook comes athwart the duke's navigation, the current of the brook is ſtopped, and let into a large baſon, from whence it falls gradually into a ſmaller one that is within it, and is open at the bottom; by which means the water ſinks into a drain, and is conveyed under-ground to the other ſide of the canal, where it riſes into its old channel.

At this place, which is about a mile from Manchester, the duke's agents have made a wharf, and are ſelling coals at three-pence halfpenny per baſket, which is about ſeven ſcore weight; and next ſummer they intend to land them in this town.

Many gentlemen of this neighbourhood are reaping the benefit of Mr. Brindley's inventions; he having taught them a method of draining coal-pits by a fire-engine, conſtructed at the expence of 150 l. which no one before knew how to make at leſs than 500 l. In theſe he uſes wooden chains, which are preferable to iron ones, and cylinders made of deal, which ſupply the place of thoſe which were uſually made of caſt iron. Channels are now cutting alſo in many other coal-pits, and boats are uſed inſtead of ſledges, to convey the coals to the mouths of the pits. I am yours, &c.

T. L.

A SECOND LETTER.

SIR, *July* 1, 1765.

I now send you some additional observations on the duke of Bridgwater's extraordinary navigation which I made yesterday at Stretford, where I found four hundred men at work, (though it was Sunday) in putting the finishing stroke to about two hundred yards of the canal, which reached nearly to the Mersey; and on drawing up the flood-gates, was to receive last night a proper quantity of water, with a number of loaded barges, and some things which I can ill describe. One of these appeared like the hull of a collier, with its deck all covered after the manner of a cabin, and having an iron chimney in the center; this, on inquiry, proved to be the carpentry, but was shut up, being Sabbath-day, as was another barge, which contained the smith's forge. Other vessels were loaded with soil, which was put into troughs, fastened together, and rested on boards that lay across two barges; between each of these was room enough to discharge the loading, by loosening some iron pins at the bottom of the troughs: other barges lay loaded with the foundation stones of the navigation canal or bridge, which is to hold the duke's barges of coals and merchandize, intended to be carried across the Mersey. Near two thousand oak piles are already driven to strengthen the foundation of this Bridge. The carpenters on the Lancashire side were preparing the center frame; and on the Cheshire, all hands, and I may say, all the water, at work in bringing down the soil, and beating the ground adjoining to the foundation of the bridge, which is designed to be covered with stone in a month, and finished in ten days more.

I surveyed the duke's men for two hours, and

think the induſtry of bees, or labour of ants, is not to be compared with them. Each man's work ſeemed to depend, and be connected with his neighbour's, and the whole poſſe appeared, as I conceive did that of the Tyrians, when they wanted houſes to put their heads in, and were building Carthage.

This bridge, when finiſhed, will unite the Lancaſhire and Cheſhire parts of the duke's navigation, and next year he will be able to ſell coals at Dunham in Cheſhire. He has finiſhed the cut quite acroſs Sale Moor *, and will ſoon compleat it over the meadows on each ſide of the River Merſey; the entrance of which, from the low and boggy ſituation, was, by men of common underſtanding, deemed his *ne plus ultra.* At this place, Mr. Brindley cauſed trenches to be made, and placed deal balks in an erect poſition, backing and ſupporting them on the outſide with other balks laid in rows, and ſcrewed faſt together; and on the front-ſide, he threw the earth and clay, in order to form his navigation canal. After thus finiſhing forty yards of his artificial river, he removed the balks, and placed them again where the canal was deſigned to advance. In order to feed that end of the navigation which is near Mancheſter, he has raiſed, and, as it were, ſwallowed up the river

* From this place the duke deſigns (by virtue of an act of parliament, now before the houſe of commons) to cut a new branch of navigation, which will extend to Stockport, and give the tradeſmen of that place the advantage of receiving by water carriage the heavy goods which they buy in London, and which are from this town conveyed to ſeveral parts of Cheſhire, Yorkſhire and Derbyſhire. In return the veſſels may be loaded with wheat, malt, cheeſe, timber, lead, and the materials for the ſeveral manufactures carried on in the town and neighbourhood of Stockport. By this branch of navigation the manufacturers of Sheffield may ſend their goods to Liverpool, Scotland and Ireland; and as returns receive elephants teeth, hides, horns, &c.

Medlock, where he last year erected some stone-works; and in order to keep its bed dry for his workmen, he turned off the chief part of the water by a cut through the rock, and invented an engine called a spoon, which he worked at the end of a lever by a horse. When this spoon dips into the water, a kind of flap door, made of leather, is pressed open, and admits the water till full, and on being weighed up, the pressure of the water within closes the door, and as the lever rises, it runs off into a channel cut at the end of the spoon handle. From the wharf, at this place, the poor of Manchester fetch great quantities of coal in wheelbarrows; and Mr. Brindley, in order to remove the inconvenience of carrying them up Castle-hill, is driving a large tunnel through the center of this hill, into which he intends to introduce his barges, and by a crane, which is to be worked by a box-water-wheel, he proposes to land the coals close to this town. That branch of the canal which is finished, and on which coals are already brought to Manchester, is about ten miles long, and the Cheshire branch already finished is about nine miles, which is computed to be executed, on an average, at one thousand guineas a mile; from which I may venture to prophecy, that though this be the first still navigation in England, it will not be the last, as by this means a communication may be made with most rivers; and trading towns may now have navigations far superior to those of rivers, made by little more than the waste water that runs from their pumps, &c. T. L.

A SECOND ACCOUNT OF THE NAVIGABLE CANAL.

IN A LETTER FROM BIRMINGHAM.

SIR,

There is a predominant principle in human nature, which has been little attended to by philosophers; but into which, nevertheless, many of our passions may, without refinement, be resolved. The principle I mean is curiosity. It is a principle which displays itself the first moment we behold the light; it attends us through every stage of our being, and does not quit us till our latest breath. It is this which makes the new-born infant gaze at the bright flame of a taper, or listen to the jingling of a coral. It is this which, in riper years, makes the fickle libertine rove from Lais to Lycetta, and from her to Messalina. It is this which makes decrepitude fond of life, when every sensation is benumbed, and every appetite extinct. And it was this which made the dying Solon solicitously enquire what his friends were whispering about.

There is a rational as well as a ridiculous curiosity: and it is a principle either useful or injurious, according to the bent of different dispositions. In weak minds it is the source of levity and inconstancy, and the guide to every mode of dissipation; but in noble minds it is the parent of industry, and the handmaid to every useful knowledge.

It is observable that the power of this principle increases in proportion to the difficulty of its gratification, and the distance of the object it pursues. Many wish to see the broken pillars of a Roman Circus, who would pass by the noblest piece of ruins in their own country with a vacant eye: and some perhaps languish to behold the vast pyramids of

Egypt,

Egypt and the Lybian deserts, who would be regardless of the wild and awful scenes of nature at Landrindod or at Matlock.

I have been led into this train of reflection by a tour which I lately made into Derbyshire and the neighbouring counties, which are replete with subjects of rational curiosity. But what mostly engaged my attention, and what best deserves the notice of an intelligent observer, is the navigation made by his grace the duke of Bridgwater, in Lancashire. This navigation, which was begun about six years ago, bears vessels of 60 tons burden, and is carried over two navigable rivers, the Irwell and Mersey, and to see vessels passing both over them and upon them, at the same time, affords a most curious and pleasing prospect.

The sough, or addit, which was necessary to be made, in order to drain the water from the coal mines, is made navigable for boats of six or seven tons burden, and forms a kind of subterraneous lake, which runs about a mile and a half under ground, and communicates with the canal. This lake, which leads to the head of the mines, is arched over with brick, and is just wide enough for the passage of the boats: at the mouth of it are two folding doors, which are closed so soon as you enter, and you then proceed by candle-light, which casts a livid gloom, serving only to make darkness visible.

But this dismal gloom is rendered still more awful by the solemn echo of this subterraneous lake, which returns various and discordant sounds. One while you are struck with the grating noise of engines, which by a curious contrivance let down the coals into the boats: then again you hear the shock of an explosion, occasioned by the blowing up the hard rock, which will not yield to any other force than that of gunpowder. The next minute your ears are

ſaluted by the ſongs of merriment from either ſex, who thus beguile their labours in the mine.

When you have reached the head of the works, a new ſcene opens to your view. There you behold men and women almoſt in the primitive ſtate of nature, toiling in different capacities, by the glimmering of a dim taper: ſome digging the jetty ore out of the bowels of the earth; ſome again loading it in little waggons made for the purpoſe; others drawing thoſe waggons to the boats.

To a ſuperficial obſerver, ſuch ſcenes ſerve only to amuſe the ſight by their novelty; but to a reflecting mind, they afford ample matter of inſtruction.

When we behold a part of our ſpecies deprived of ſunſhine, the common inheritance of mankind, and buried in a diſmal and confined cavern, in which they can ſcarce rear their form, our feelings prompt us to pity their condition; but when we obſerve the lively ray of chearfulneſs break forth in this ſcene of darkneſs and diſtreſs; when we behold the glow of health in the midſt of damp and ſuffocation; we then ceaſe to pity them, and begin to examine ourſelves: we then diſcover that our enjoyments above ground ſerve only to multiply our wants; and we are convinced of the truth of that maxim, which aſſures us that happineſs is *every where or no where.*

I have hitherto conſidered theſe works merely as ſubjects of curioſity; but what moſtly recommends them, is their extenſive utility. The navigation has already been of great benefit to the town and neighbourhood of Mancheſter, by reducing the price of coals to near one half leſs than was uſually paid; the poor in particular reap vaſt benefit from it, as coals are retailed to them in ſuch ſmall quantities as 100 weight, at the rate of 3 ½ *d.* per hundred. It has likewiſe afforded great improvement to the lands through

through which it has been cut, by means of the subterraneous drains, which have been made to convey the waters under the canal; and it will in a short time effect great improvement in a large track of moss land, which yields no profit at present. Add to this, that it has proved very beneficial to the tenants of the adjacent lands, by means of the great quantity of marl, which has been discovered, and given to them.

When the navigation shall be extended to Liverpool, whither it is expected to be carried in about four or five years, the towns and neighbourhood of Liverpool and Manchester will have the benefit of boats passing every day between the two places; and they will reap the farther advantage of having their goods carried for 6*s.* per ton; whereas they now pay 10 or 12*s.* per ton, water carriage; not to mention that from the difficulty and uncertainty of the passage, great quantities of goods are sent by land, at the expence of about 40*s.* per ton.

Such are the advantages already attending, and which are farther to be expected from, this noble undertaking, and which has thus been expeditiously and successfully conducted, under the care of two ingenious gentlemen, whose works sufficiently evince their * merit. But it would be unpardonable to withhold the praise so justly due to the noble duke who called their merit forth; and who, at an age too often spent in riot, or at best perhaps in futile dissipation, applied his attention to useful objects,

* I must not omit to observe, that in digging the canal, a kind of sand or gravel was found, which after repeated experiments, was discovered to be lime; and so good a method of burning it was contrived, that it has been made to supply all occasions hitherto, which have been very great, and has saved many thousand pounds, as lime must have been brought near thirty miles, if this discovery had not been made.

and

and had the ſpirit to hazard ſo great a part of his fortune in an undertaking worthy the purſuit of a prince; and which is now likely to prove profitable to himſelf, as well as beneficial to his country.

When the influence of exalted rank, and the power of large poſſeſſions, are thus nobly and uſefully exerted, they confer additional luſtre on the poſſeſſor: and ſuch a laudable application of the gifts of fortune is ſo rare, that it ought not to paſs unnoticed. It is to be hoped that his grace's noble example will be followed by others, in ſuch parts of the kingdom where inland navigations may be made for the improvement of trade and commerce: and it is with pleaſure we hear that a ſcheme is in agitation for opening a communication between the two ports of Liverpool and Hull, which will not only be of great immediate benefit to this and other trading towns in the adjacent counties, as well as to the public in general, but may hereafter be made the means of infinite local as well as national advantages, by branches which may be extended to ſeveral parts from the main trunk.

I am, &c.

A THIRD ACCOUNT OF THE DUKE OF BRIDGWATER'S NAVIGABLE CANAL.

At Worſley-Mill, 7 computed miles from Manchester, is the duke of Bridgwater's Tunnel, a ſubterraneous navigation that leads to the coal mines; the firſt entrance for 1000 yards is ſix feet and a half wide, ſeven feet and a half high, including the water, which is three feet four inches deep; it is already continued 500 yards further, 10 feet wide, the ſame height, in a di-

a direct line, and will be extended at least a mile and a half more; the boats employed therein are forty-seven feet long and four feet and a half wide, including the gunnels; they draw, when loaded, two feet six or seven inches, and carry from seven to eight tons; there is a rail on each side, by which the boats are towed or pulled by the hand; and being linked together, are brought out of the tunnel from six to twenty at a time. A boy of seventeen has worked twenty-one, which at seven tons each (the lowest burthen) makes 147 tons; they are from thence drawn by mules or horses to Manchester and other places, generally four or six in a gang; there is also a mill that by a small overshot stream turns a wheel eight yards diameter, and by that power, three pair of stones to grind corn, and an apparatus compleat, to make mortar; also portable cranes of an uncommon construction, to draw stone out of the quarry with callipers.

Near the same place is found a stratum of the quality of lime, which being mixed with clay and formed into bricks is burnt, and a very useful mortar is made of it.

At Barton Bridge (three miles) the aqueduct, upwards of 200 yards, which conveys the canal across a valley, and rides 38 feet above the navigable river Irwell; there are also stops at each end, which may occasionally be drawn up, and let off the whole body of water; this is easily done by drawing a plug, and discharging the water into the Irwell through a wooden tube.

It is to be observed that there are many of these stops or flood-gates so constructed, that should any of the banks give way, and thereby occasion a current, they will rise by that motion, and prevent the damage that would otherwise happen by overflowing the country.

At Stretford, three miles off, is the caiſſoon 40 yards long by 32, alſo open bottomed boats; their uſe to diſcharge their burthens of earth, and thereby raiſe the ground where the level requires it; theſe are always employed in the caiſſoons, as the ground they paſs over lies above 16 or 18 feet below the ſurface of the canal; they carry about 16 or 18 tons, which is with great eaſe dropped in an inſtant, where wanted.

At Cornbroke, three miles, is a circular wear to raiſe the water of the canal to its proper height: the overplus flows over the extreme ſides into a well in the nave of the circle; and by a ſubterraneous tunnel is conveyed to its uſual channel; alſo a machine to waſh the ſlack, worked by water.

Note, The centre arch at Barton Bridge that carries the aqueduct is 63 feet, and on the pier between the great arches are 96 central arches.

On the ſide of Caſtle-field is a large wharf, and a larger one intended to be in the centre of this field, formerly a Roman camp. There is a large and beautiful wear compoſed of ſix ſegments of a circle, the whole circumference 366 yards, which acts by the river Madlock, in the ſame manner as that at Cornbroke, to ſupply the canal. There is a large tunnel in Caſtlefield, under the hill in which will be a bucket-wheel, 30 feet circumference, and four feet four inches wide, to draw up the coals brought in boxes fixed in the boats, and contain about eight hundred each; and when diſcharged, will be landed where the way to Mancheſter is ſo level, that a good horſe may eaſily draw one ton to any part of that town.

Mancheſter, Auguſt 1, 1765.

A FOURTH ACCOUNT OF THE DUKE'S NAVIGATION.

In a Letter to a Lady.

Madam,

This waits on you with an account of the duke of Bridgwater's magnificent work near Manchester, which is, perhaps, the greatest artificial curiosity in the world; crowds of people from all parts resort to it, and persons of high rank express their admiration of it.

This is a new canal, and I know not what to call it besides, constructed, as it should seem, to convey coals out of a mine to Manchester and other places; but is capable of being applied to more considerable purposes.

This stupendous work was begun at a place called Worsley Mill, about seven miles from Manchester; where, at the foot of a large mountain, the duke has cut a bason capable of holding all his boats, and a great body of water, which serves as a reservoir, or head, to his navigation; and in order to draw the coals out of the mine, which runs through the hill to an amazing extent, his grace has cut a subterraneous passage, big enough for long flat-bottomed boats to go up to the work, and has so preserved the level, that a part of the water, which drives a mill near the mouth of the passage, runs in, and stands to the depth of about five feet. This passage also serves to drain the coal mines of that water which would otherwise obstruct the work, and is to be carried on three miles or more under ground.

Having obtained a ticket to see this curiosity, which is done by sending your name to a new house,

 which

which the duke has lately built for his residence, at about half a mile distance, you enter with lighted candles the subterraneous passage in a boat, made for bringing out the coals, of this form and dimension;

Fifty feet long, four and an half broad,

Two feet three inches deep.

When you first enter the passage, and again when you come among the colliers, your heart will be apt to fail you; for it seems so much like leaving this world for the regions of darkness, that I could think of nothing but those descriptions of the infernal shades which the poets have drawn for Ulysses, Æneas, and your old friend Telemachus. There is more civility, however, in this region, than Homer, Virgil, and Fenelon, have discovered in theirs; for should your spirits sink, the company are ever ready to aid you with a glass of wine: even Charon himself will offer you a cup on the occasion.

Through this passage you proceed, towing the boat on each hand by a rail, to the extent of a thousand yards, that is, near three quarters of a mile, before you come to the coal works; then the passage divides, and one branch continues on a straight line among the coal works three hundred yards further, while another turns off, and proceeds three hundred yards to the left; and each of them may be extended farther, or other passages be conveyed from them to any other part, as the mines may run and necessity require. Hence you will perceive, that those who go up both passages, travel near three

miles

miles under ground before they return. The paſſages in thoſe parts where there were coals or looſe earth, are arched over with brick, in others the arch is cut out of the rock.

At certain diſtances there are, in niches, on the ſide of the arch, funnels or openings through the rock to the top of the hill, (which is in ſome places near thirty ſeven yards perpendicular) in order to preſerve a free circulation of freſh air, as well as to prevent thoſe damps and exhalations that are often ſo deſtructive in works of this kind, and to let down men to work in caſe any accident ſhould happen to the paſſage. Near the entrance of the paſſage, and again further on, there are gates to cloſe up the arch, and prevent the admiſſion of too much air in tempeſtuous and windy weather.

At the entrance the arch is about ſix feet wide, and about five feet high from the ſurface of the water; but as you come further in it is wider, and in ſome places opened ſo that the boats, that are going to and fro, can paſs each other, and when you come among the pits the arch is ten feet wide.

The coals are brought from the pits to this paſſage or canal, in little low waggons that hold near a ton each, and as the work is on the deſcent, are eaſily puſhed by a man, on a railed way, to a ſtage over the canal, and then ſhot into one of the boats already mentioned, each of which holds about eight tons. They then, by means of the rails, are drawn out by one man to a baſon at the mouth of the paſſage, where four, five, or ſix of them are linked together, and drawn by one horſe or two mules, by the ſide of the canal, to Mancheſter or other places where the canal is conveyed.

There are alſo, on the canal, other broad boats, that hold about fifty tons, which are likewiſe drawn by one horſe. Of the ſmall boats there are about

fifty employed in the work, and of the large ones a considerable number.

Before we quit the coal mines, to speak of the open canal and its conveyance, we must take some notice of a mill near the mouth of the passage, and which, though an overshot mill, is so well contrived as to work three pair of grinding stones for corn, a dressing or boulting mill, and a machine for sifting sand and compounding mortar for the buildings. The mortar is made by a large stone, which is laid horizontally, and turned by a cog-wheel underneath it, and this stone on which the mortar is laid, turns in its course two other stones that are placed upon it obliquely, and, by their weight and friction, work the mortar underneath, which is tempered and taken off by a man employed for that purpose. The boulting mill is also worthy notice. It is made of wire of different degrees of fineness, and at one and the same time discharges the finest flour, the middling sort, and the coarse flour, as well as the pollard and the bran; and without turning round, the work being effected by brushes of hogs bristles within the wire.

From the bason we have been speaking of, the canal takes its course to Manchester, which is nine miles by water, though but seven by land, the other two miles being lost in seeking a level for the water. The canal is broad enough for the barges to pass, or go abreast, and on one side of it there is a good road made for the passage of the people concerned in the work, and for the horses and mules that draw the boats and barges. To perfect this canal without impeding the public roads, or injuring the people in the country, the duke has in many places built bridges to cross the water, and (where the earth was raised to preserve a level) arches under it; all of which are built chiefly of stone, and are both elegant

elegant and durable; but what principally ſtrikes the common obſerver, is the work which is raiſed near Barton Bridge, to convey the canal of water over the Irwell, which makes a part of the old navigation from Mancheſter to Liverpool. This is done by means of three arches built of ſtone, which are ſo ſpacious and lofty as to admit of the veſſels ſailing underneath it; and it is indeed a moſt noble ſight to ſee large veſſels in full ſail under his aqueduct, and the duke's veſſels ſailing at the ſame time over all, and near fifty feet above the navigable river. (See the frontiſpiece.) At convenient diſtances there are, by the ſides of the canal, receptacles for the ſuperfluous water; and at the bottom of the canal machines conſtructed on very ſimple principles, and placed at proper diſtances, to ſtop and preſerve the water in caſe any part of the bank ſhould happen to break down. The aqueduct is perfected as far as Mancheſter, where coals are brought from the mine in great plenty, and another large baſon is making for the reception of the veſſels employed in this work.

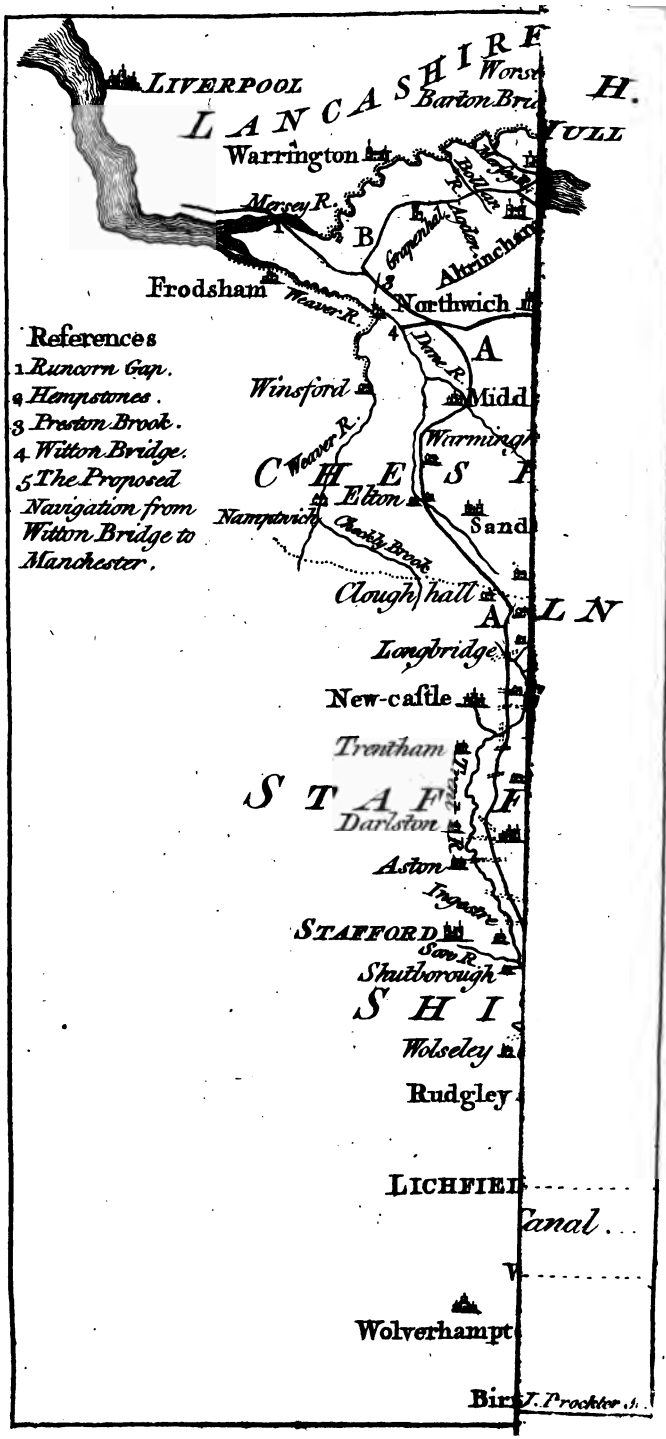
Beſides this, there is another canal, which takes its riſe from that we have deſcribed, near Barton Bridge, and goes to Stretford, and from thence will be probably extended on the Cheſhire ſide of the river Merſey as far as Liverpool; and if ſo, what a moſt noble convenience will this be for travellers.—We ſhould then travel with as much ſafety, certainty, and diſpatch, as in the trachtſcoots in Holland and Flanders, and in the ſame manner; for, as here is no current to impede the veſſel, one horſe will draw fifty ton of coals after the rate of four miles an hour; and would trot with a light boat and paſſengers ſix or ſeven; and if the boats were covered we might travel by night or by day, and ſleep, read, write, play at cards, drink tea, and partake of a thouſand diverſions.

All

All who ſee the work wonder how it could be effected, and thoſe who conſider the contrivance of the workman, are ſtill more amazed at the oeconomy with which it is carried on. Mr. Brindley, the principal engineer, is one of thoſe great geniuſes which nature ſometimes rears by her own force, and brings to maturity without the neceſſity of cultivation. His whole plan is admirable, and ſo well concerted, that he is never at a loſs; for if any difficulty ariſes, he removes it with a facility that appears ſo much like inſpiration, you would think Minerva at his fingers ends. Beſides the machines already mentioned, which are moſtly new, as well as others I have paſſed over for want of room, he has contrived ſome caiſſoons of admirable conſtruction, for raiſing the earth to preſerve the level; and as theſe, as well as a ſmith's forge and carpenters and maſons workſhops, are floated on the canal, and follow the work from place to place, there is little hindrance from accidents; and as the duke has all the reſources within himſelf, and timber, ſtone, mortar, and coal from his own eſtate, and at hand, he has been at little expence except for labour. It is alſo to be obſerved, that the Duke, like a good chemiſt, has made the refuſe of one work conſtruct the material parts of another; thus the ſtone which was dug up to form a baſon for the boats at the foot of the mountain, as well as that taken out of the rock to make the ſubterraneous paſſage, are hewn into different forms and dimenſions, to build bridges over the water, or arches to ſupport the aqueduct, and the clay and other earths taken up to preſerve the level in one place, are carried down the canal to raiſe the land to a level in another.

Here grandeur, elegance and oeconomy are happily united. At firſt view you would think the work was intended to aſtoniſh; but upon a cloſer inſpection

you


LIVERPOOL
LANCASHIRE
Worsl
Barton Bri
H.
ULL
Warrington
Mersey R.
Irwell R.
Bollin R.
Lodon
Grempill
Altrincham
Frodsham
Weaver R.
Northwich
Dane R.
A
Winsford
Midd
Warringl
Weaver R.
CHESH
Elton
Nampwich
Cholly Brook
Sand
Clough hall
ALN
Longbridge
New-castle
Trentham
STAFF
Darlston
Aston
Tame R.
STAFFORD
Sow R.
Shutborough
SHI
Wolseley
Rudgley
LICHFIEL
Canal
Wolverhampt
Bir
References
1 Runcorn Gap.
2 Hempstones.
3 Preston Brook.
4 Witton Bridge.
5 The Proposed Navigation from Witton Bridge to Manchester.
J. Prockter

you find nothing but what is proper and necessary, and that the whole has been done at an expence no ways adequate to the undertaking. In short, the work is truly wonderful, and will be a standing monument of the good taste, public spirit, and oeconomy of the duke of Bridgwater to the end of time. I am, Madam, yours, &c.

M. N.

An Account of the intended NAVIGATION *for a* COMMUNICATION *between the Ports of* LIVERPOOL *and* HULL, &c.

I cannot set this undertaking in a clearer or more perspicuous light than by an extract from a very sensible pamphlet, intitled, "A View of the Advantages of Inland Navigations, &c."

"The present design comprehends only a part of the great one mentioned above. It is to join the river Trent, near Wilden in Derbyshire, with the river Weaver in Cheshire, or the duke of Bridgwater's navigation, or the tide-way in the river Mersey, as shall be found most expedient, by a canal, with branches to Birmingham, Lichfield, Tamworth and Newcastle. And if this work meets with the approbation of the country, and the encouragement of the Legislature, in all probability the other parts of the design will soon be undertaken, to the great advantage both of the commercial and landed interests; and petitions to parliament, for branches out of the principal canals, will become as frequent as they now are for turnpike roads.

The canal now intended to be carried into execution, was first proved to be practicable by the survey of Messrs. Taylors of Manchester, and Mr. Eyes

Eyes of Liverpool, made in the year 1755, at the expence of the Liverpool corporation; and chiefly promoted by the late Mr. Hardman; an active and able friend to the commercial interests of this nation, and one of the representatives of that borough. And the public is indebted to the earl Gower, and the late lord Anson, for another survey of the intended course of this canal, made by Mr. Brindley in 1758, and afterwards reviewed by Mr. Smeaton, F. R. S. and Mr. Brindley jointly; and these surveyors concurred in opinion, that no tract of land in the kingdom was naturally better adapted for the purpose of an inland navigation, that none stood in more need of it, or was so convenient for an union of the east and west seas.

The reasons for preferring a canal to a river navigation, are many and important. The shortness of the voyage on the former, which is protracted on the latter by the winding course of the stream; the absence of currents, which in rivers impede the upward navigation more than they assist the downward *, and hourly undermine and wear away the banks; the security from the mischief and delay occasioned by floods; the easier draught for the horses, as the boats will, in a canal, move nearer the towing path; and the advantage of choosing high ground for the locks, while in the other case, the situation of them must be regulated only by the accidental shallows of the rivers, are all circumstances greatly in favour of canals; and especially the last:

* This advantage can hardly any where appear in a more full and striking light, than at Barton Bridge, in Lancashire; where one may, at the same time, see seven or eight stout fellows labouring like slaves to drag a boat slowly up the river Irwell; and one horse drawing two or three boats at a great rate upon the canal; which is carried over the river at this place, like a magnificent Roman aqueduct.

riches and ſupport to the induſtrious farmer, and his uſeful dependants.

Agriculture is an inexhauſtible ſource of plenty and riches, which can never be ſo much enlarged, or its ſtreams ſo widely diffuſed, as by the means of inland navigations: and as the inhabitants, in ſome places near the intended canal, conſume much more corn and grain of all kinds than they can raiſe, and thoſe in others raiſe more than they can conſume, this circumſtance will find great employment for the navigation, to the general advantage of the adjacent counties.

The farmers, in the neighbourhood of the new canal, may indeed object, that the price of grain will never riſe ſo high as it has done in times of ſcarcity, when there is the opportunity of an eaſy importation. In anſwer to which, it may be obſerved, that from the eaſe of exportation, it will never ſink ſo low in plentiful ſeaſons; ſo that the profits of the farmers, upon the whole, will not be leſs, but more equal: and we cannot help obſerving, in this place, that inequality of gain is, of all others, the moſt frequent cauſe of their ruin; as in ſcarce times, when their profits are great, they become more expenſive and luxurious, and do not ſo well know how to contract their manner of life, when cheaper ſeaſons lower the value of their commodities.

In times of plenty, the land-owners and farmers near the canal, will receive great benefit from the exportation of their grain, of all kinds: in times of ſcarcity, the whole country will be relieved, by means of a ſeaſonable exportation; and thus the bleſſings of providence be more equally and uniformly diſtributed, and an artificial dearth rendered almoſt impoſſible. How ineffectual would be the attempt of the moſt powerful monopolizer, in ſuch a country as China, where plenty can be thrown into

 any

any market, from all parts, by means of navigable canals?

Another cultivated article, of great importance, is that of timber of all kinds, and especially oak; of which there are many large woods near the course of the intended canal, that for want of a proper conveyance to sea-port towns, where timber is much wanted for ship-building, are sold in the neighbourhood at a low price. Any method of conveying so bulky an article as this to the places of consumption, at an easy expence, will greatly encourage the growth of it, and help to repair that decrease* of ship-timber in this nation, which is a very alarming circumstance, to a people whose riches and power depend so greatly upon navigation.

Cordwood, to make charcoal for the iron works, oak-bark for the tanners; and woad, madder, and other articles which may become the objects of cultivation, will be carried at a cheap rate upon the canal, to the mutual advantage of the proprietors and consumers. Wool, hides, tallow, and provisions of various kinds, will become more beneficial to their owners, by the advantage of an easy conveyance, to places where they may be consumed or manufactured.

As this canal will go through the middle of Cheshire, so famous for the great quantities of good cheese it produces, the advantages arising from it to the dairies will be very considerable; as many hundred tons of this article are annually carried by land, above forty miles, to Willington in Derbyshire, to be shipped for London and other distant markets, which will for the future be sent by wa-

* For a very interesting view of the proportionate decrease of oak timber, see Mr. Fisher's Heart of Oak, p. 72.

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ter, all the way to Hull and Liverpool, at a very moderate expence.

From the Wiches, in Cheſhire, manufactured ſalt is carried, on horſeback, to almoſt all parts of Staffordſhire, Derbyſhire, Leiceſterſhire, Nottinghamſhire, Yorkſhire, and Lincolnſhire; to which places it will gain a much cheaper acceſs, by means of the intended navigation: and ſo great is the home conſumption of this article, that from the ſalt-works at Northwich only, a duty of 67,000 l. was laſt year paid into the exchequer. At Northwich and Winsford are annually made about 24,000 tons.

The town of Burſlem, and villages of Stoke, Hanley-green, Lane-delf, and Lane-end, are employed in the manufacturing of various kinds of ſtone and earthen wares, which are carried, at a great expence, to all parts of the kingdom, and exported to our iſlands and colonies in America, and to almoſt every part of Europe; but the ware which is ſent to Hull is now carried by land upwards of thirty miles, to Willington; and that for Liverpool twenty miles, to Winsford. The burthen of ſo expenſive a land-carriage to Winsford and Willington, and the uncertainty of the navigations from thoſe places to Frodſham, in Cheſhire, and Wilden, in Derbyſhire, occaſioned by the floods in winter, and the numerous ſhallows in ſummer, are more than theſe low-priced manufactures can bear; and without ſome ſuch relief as this under conſideration, muſt concur, with their new eſtabliſhed competitors in France, and our American colonies, to bring theſe potteries to a ſpeedy decay and ruin.

All the branches of the metallic trades, which are almoſt innumerable, and carried to an aſtoniſhing extent at Birmingham, Walſal, Wolverhamp-

ton, and other places in the neighbourhood of the intended navigation, muſt receive advantages from it, that cannot at preſent be eſtimated or conceived.

We have already mentioned the important circumſtance of bringing ores out of the north, to mix with thoſe in Staffordſhire; by which the iron of that country muſt be rendered better and cheaper; and to this we may add the great advantages of having charcoal, lime, and other fluxes, brought to the furnaces at a ſmall expence: and likewiſe the great ſaving there may be in conveying this heavy article from the forge to the manufacturer by water; all which circumſtances muſt contribute to encreaſe the conſumption of Engliſh iron, and enable the iron maſters, in that neighbourhood, to come upon a competition with foreigners, ſo far as to reduce the price of foreign iron, and upon the whole greatly to benefit both themſelves and the manufacturers: and certainly the firſt object, in the encouragement of any manufactory, is to furniſh it with its raw-materials at the loweſt price; to which nothing, in general, contributes ſo much as inland navigations.

By the means of this canal then, the iron maſters will be enabled to ſerve the manufacturers better with their materials; and by the ſame means, the manufacturers will be enabled to ſend their finiſhed goods away much cheaper, and to more markets; by which the conſumption, and exportation of them, cannot fail to be greatly increaſed.

The circumſtance of a water-conveyance, all the way from Birmingham, to the ports of Hull and Liverpool, will be a very great reciprocal advantage to all the three places. The reduction of the price of carriage, which will take place between Birmingham and the laſt-mentioned port, is ſo great

great a proportion of the value of guns, nails, and other heavy manufactures of iron, that the exportation of them from thence muſt be increaſed to a degree beyond eſtimation.

The fine ale, made at Burton upon Trent, which is now exported to Germany, and ſeveral parts of the Baltic, may, by means of the intended canal, be exported from Liverpool to all parts of America, where it is likely to become a very conſiderable article of commerce.

The valuable manufactures of Nottingham, Leiceſter, and Derby, will find a cheap conveyance to Liverpool, by this navigation; and the demand for them, at that port, will conſequently be increaſed.

In the neighbourhood of Burſlem, and the potteries, bricks and tyles are made of a blue colour, which are ſo far vitrified, as to be harder, and more durable than any kind of ſtone uſed in building; and theſe articles are likely to find a demand through the whole courſe of the canal.

Having mentioned the principal natural productions, cultivated commodities, and manufactures in the neighbourhood of the intended navigation, we come to the articles of importation, and of general commerce.

Great quantities of flint ſtones uſed at the potteries in Staffordſhire, are brought by ſea, from different parts of the coaſt, to Liverpool and Hull. And the clay, uſed in the white and coloured ware, is brought from Devonſhire, chiefly to Liverpool; and from thence ſent up the river Weaver to Winsford in Cheſhire: the flints from Hull are ſent up the Trent to Willington in Derbyſhire; and from Winsford and Willington they are both brought to the works at a very great expence by land-carriage; the one being twenty, and the other not leſs than thirty eight miles diſtant from the potteries:

teries: and they are likewise subject to the same expences and delays, from floods and shallows, as the manufactured goods, mentioned before, to the very great disadvantage of the manufacturers. Inconveniencies, which nothing but a navigable canal can remove.

The iron-ore from Cumberland, as it will be a considerable article of importation, must be mentioned in this place, though, in another view, it has been taken notice of before.

Hemp, flax, and linen-yarn, will be conveyed by this canal, to various manufacturers who make use of those materials; and probably occasion the establishment of several new manufactories.

Deals for building, and mahogany for cabinet-work, which are much wanted, and are now very dear, in many parts of those counties through which the canal is to pass, owing to the heavy charge of land-carriage upon such bulky commodities, will be conveyed through the whole extent of this navigation at a moderate expence, and become very considerable articles of commerce.

American iron will also, by this means, be brought cheaper to the manufacturing towns, from the ports of Liverpool and Hull; and contribute, with the advantages, already mentioned, arising to the iron-masters, to lessen the consumption of foreign European iron, to the great profit of this nation, in general, and our own iron-works, in particular; and have a tendency to keep that money at home, which, for want of a better system of commercial policy, is now sent to foreigners, who take very few of our manufactures; and also to prevent the destruction * of a trade, on which many thousands

* It may deserve the consideration of those who are immediately interested in the subject, whether a bounty on American pig-iron

ſands of induſtrious workmen depend for ſubſiſtence.

The numerous manufacturers in Birmingham, and its neighbourhood, will, in general, receive their raw materials, of all kinds, much cheaper, by means of the intended canal; ſuch as copper, calamine, lead, zinc, ivory, and many others.

The merchants of Liverpool and Hull will ſupply the towns and villages, bordering upon the canal, with rum, wine, tobacco, ſugar, and all kinds of groceries and dying-ſtuffs, at lower prices than they have been accuſtomed to receive theſe commodities; and with much more ſafety and expedition. And, as theſe are articles of general conſumption, the amount of them muſt be very conſiderable; and the benefit to the public, proportionably great.

The ſalt-trade will receive a very important advantage from the canal, when the navigation in the Weaver may, at any time, be interrupted; as that article may occaſionally be forwarded to Liverpool, by this new conveyance, for the diſpatch of thoſe veſſels which would otherwiſe be detained there, at a great expence. And any injury the proprietors of the Weaver navigation have to apprehend from it, ſuppoſing the canal ſhould not terminate in that river, muſt weigh light in the balance of public uti-

iron would not be the moſt effectual ſupport of this valuable branch of buſineſs? Would it not induce the Americans to turn their attention from bar-iron to the making of pig-iron? Would it not contribute to clear the lands in America; and to preſerve the woods in England? Might not our furnaces be turned into forges? And is it not agreeable to ſound policy, to encourage our colonies, in ſupplying us with raw materials, as near as poſſible to their firſt ſtate?——If this regulation ſhould take place, as it probably may, then, the gentlemen in the iron trade will want no arguments to convince them, that their buſineſs muſt have a very eſſential dependance on inland navigations.

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lity; as their freight depends chiefly upon ſalt, and ſalt-rock, from Winsford and Northwich; which, at preſent, amount to about 50,000 tons a-year; and will no doubt be ſtill increaſed: and none of this likely to come upon the new canal, but when floods, or the repairing of locks, obſtruct the Weaver; becauſe the canal will be ſome miles diſtant from Winsford; and though it ſhould come near the works at Northwich, the diſadvantage of unloading, and loading again, as the canal veſſels cannot live in the tide-way, will prevent the ſalt from being ſent by them, except upon ſuch occaſions as thoſe that are mentioned above.

The diminution of the price of carriage, which will take place, by means of the canal, muſt alſo appear to be a very great and neceſſary advantage to our manufactures and commerce; when our preſent price of land-carriage is placed in a comparative view with that of our chief competitors: the price of land-carriage between Birmingham and London, being about 8 s. per ton, for ten miles; and in the neighbourhood of the intended canal, and in many other places, no leſs than 9 s. per ton; whilſt merchandiſe may be conveyed, by land, between Lions and Marſeilles, in France, at the rate of 5 s. per ton, for the ſame diſtance. A circumſtance that muſt give the manufacturers of that nation, a very great ſuperiority over ours, at all markets, where they would otherwiſe meet upon equal terms.

Having conſidered the principal advantages which the public may reaſonably expect from the execution of this deſign, we ought not to forget the pleaſures that may ariſe from it to individuals; eſpecially as taſte is ſo univerſally cultivated, that our farms are gradually improving into gardens. And here it muſt be allowed, that to have a lawn terminated by water, with moving objects, paſſing

for as in river navigations, the locks must frequently be erected on low lands, the neighbouring meadows are thereby often rendered damp and swampy; while in canal navigations this disadvantage is not only avoided, but as the canal, to pursue its most convenient course, must frequently wind along the edges of the rising ground, numberless springs will be cut through, and the plain beneath rendered actually drier and more fertile. It is also another circumstance not unworthy of notice in favour of canals, when compared with river navigations, that as the conveyance upon the former is more speedy, and without interruptions, and delays, to which the latter are very liable, opportunities of pilfering earthen wares, and other small goods, and stealing and adulterating wine and spirituous liquors, are thereby in a great measure prevented. The losses, disappointments and discredit of the manufacturers, arising from this cause, are so great, that they frequently choose to send their goods by land at three times the expence of water carriage, and sometimes even refuse to supply their orders at all, rather than run the risque of forfeiting their credit, and submitting to the deductions that are made on this account.

We may also add, with respect to the potteries in Staffordshire, that this evil discourages merchants abroad from dealing in those manufactures, and creates innumerable misunderstandings between them and the manufacturers.

This canal is designed to fall into the Trent at Wilden rather than at Burton, to avoid the shallows which greatly interrupt the navigation on that river: at Harecastle, the highest part in the course of the canal, from whence the water falls north and south, it will pass above a mile under ground; by which means fewer locks will be necessary, and more water supplied from the coal mines in that country:

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and the whole length of it, with the branches, will be upwards of an hundred miles.

The canal and veſſels are to be conſtructed on the plan found moſt eligible from various experiments made on the duke of Bridgwater's navigation. From theſe experiments his excellent engineer, Mr. Brindley, hath propoſed to compleat this canal as far north as Harecaſtle, purchaſe the land, erect locks, make towing paths, build bridges, and defray every expence, except that of obtaining the act of parliament, for ſeven hundred pounds a mile: to cut through Harecaſtle it is ſuppoſed will coſt ten thouſand pounds; and the remainder of the canal one thouſand pounds a mile. He propoſes to make the new canal twelve feet wide at the bottom; and three feet deep in general; but at the fords only thirty inches; and, in common, to ſupply it with a quantity of water juſt ſufficient for the navigation, held up by locks, and having no ſtream, like thoſe in Holland.

The boats are to be ſeventy feet in length, ſix feet wide, to draw near thirty inches water, and to carry twenty tons burthen. They are to be ſo conſtructed as to ſail with either end foremoſt, by removing the rudder; and to coſt about thirty pounds each.

There is to be a man and a boy to each boat, which one horſe will draw with eaſe along the canal; but when neceſſary, will be able to draw three of them.

It is propoſed to raiſe the money by ſubſcription, in lots, or ſhares, of two hundred pounds each; no perſon to ſubſcribe more than twenty ſhares; the tonnage to be fixed by act of parliament, and veſted in the ſubſcribers, as a ſecurity for their money; the company to be under the inſpection of commiſſioners, as in moſt other navigation acts; the ſhares to

be

be transferable, in an easy manner, like government securities; the navigation to be free and open to all persons, paying the tonnage fixed by law; and land-owners to have liberty to erect warehouses and wharfs, on the banks or sides of the navigation.

It is also proposed to repay the money subscribed for obtaining the Act of Parliament, out of the capital stock, if the application to parliament be attended with success.

Particular Advantages of the intended Canal.

The advantages arising from cheapness of carriage and easy communication between the distant parts of a country, and the manufacturing towns and sea-ports reciprocally, are so very extensive and complicated, that it is impossible to reduce them to any very exact estimation. If we would attempt to estimate them at all, it will be necessary to discover, as near as we can, how much the price of carriage is likely to be diminished; and what quantities, and kinds of goods, will probably be conveyed by this navigation.

The price of land-carriage, in the neighbourhood of the canal, is, upon an average, about 9 s. a ton, for ten miles. It is supposed the tonnage upon the canal, for the same distance, will be about 2 s. and the freight not above 6 d. more, making together 2 s. 6 d. per ton: so that near three fourths of the present price of carriage will be saved to the public. And the difference between land and water carriage, in other places confirms the justness of this conclusion. Land-carriage, for instance, between Manchester and Liverpool, which are about thirty-eight miles distant from each other, costs 40 s. per ton; water-carriage only 6 s. and

8 d. one way, and 10 s. the other; suppose 9 s. upon an average; and the saving, by this navigation, is above three fourths of the expence of land-carriage.

If we suppose the saving to be only 6 s. in 9, which is a very moderate computation, this circumstance alone will not only enable land-owners, manufacturers, and merchants, to convey many articles to markets where they never could have borne the expence of land-carriage; but will also bring into use many natural productions; such as coals, stone of various kinds, timber, iron-ore, alabaster, &c. which, from their unfavourable situations, never could have been employed.

To give some idea of these advantages, we must endeavour to enumerate the chief sources of employment for the intended navigation: and these may be considered under the three following heads: 1. Natural productions of the countries that lie near the canal. 2. Cultivated commodities and manufactures. 3. Imported raw-materials, and general commerce.

From Northwich to Lawton there lies a vast bed of rock-salt *, about forty yards thick, which, besides being purified and chrystallized for home consumption and exportation, as will be mentioned in its proper place, might be made great use of in agriculture, and probably in metallurgy, and several of the mechanic arts, if any method could be discovered of granting the liberty of using it with safety to the revenue.

There is a mountain called Mole Cop, near Lawton, that contains four different and useful kinds of

* These salt-mines were first discovered in the year 1670, by boring for coals, in the liberties of William Marbory, Esq; of Marbory, and lie about thirty-four yards from the surface.

stone,

ſtone. 1. Millſtones of an excellent quality, which are now carried by land upwards of an hundred miles, and to all parts of the intended navigation. 2. A good limeſtone. 3. A fine freeſtone. 4. Grinding ſtones, of different ſorts *.

Near Wolſeley-bridge, and alſo a mile below Burton, a free-ſtone is found on the banks of the river Trent, excellent for its firmneſs and colour, ſome parts of which ſeem not inferior to that of Portland or Roche-Abbey.

A mile from Rudgley, a blazing kind of coal, called canel, and other coals, are found, belonging to the Earl of Uxbridge. The lower ſtratum of theſe mines is ſaid to be a valuable one; and it is apprehended a navigable ſough might be carried from the new canal into the heart of them, in the manner of the duke of Bridgwater's colliery in Lanca-

* Between this place and Newcaſtle lies Burſlem, the chief manufactory for white flint ware, which is as ſtrong and ſweet as India porcelain, and though 'tis rather ſlighted by the Engliſh ladies, from its cheapneſs, foreigners give it its due preference, and uſe it generally at their tables; the exportation of it is annually to about the amount of 100,000 l. The chief potters have lately erected two turnpike roads, to make their wares more conveniently carried off. But this navigation will afford them opportunities, not only of ſhipping their wares for the ſeveral markets in Europe, but likewiſe their coals, which are equally good with thoſe which the metropolis is generally ſupplied with, and lie under almoſt every field within two miles of the town of Burſlem. Theſe coals will then be a national uſe, and there is hardly any circumſtance that contributes more to the flouriſhing ſtate of a manufacturing country, than plenty and cheapneſs of fuel.

Lancaſhire; and that this would lay them dry; the want of which is the preſent obſtacle to their being worked; and at the ſame time convey the coals into the new canal, to the great advantage of the noble proprietor, and the neighbouring country.

Near that part of the Trent where the canal is to terminate, ariſes a vaſt mountain of lime-ſtone, on which the village of Breden, in Leiceſterſhire, is ſituated: at Tickenhall, in Derbyſhire, not far from the laſt mentioned place, there are alſo quarries of lime-ſtone; and at Barrow, in Leiceſterſhire, they burn an excellent kind of lime for building; which is conveyed to places at a great diſtance by land, every way; and lime is much wanted through the whole courſe of the canal, both for the purpoſes of architecture and cultivation.

A few miles lower, at Clay-Hill, a firm and elegant alabaſter is found, proper either for ſtucco or ſculpture.

Not many miles from the Trent, near the river Soar, in Leiceſterſhire, which it is hoped the gentlemen in that neighbourhood, and the inhabitants of Leiceſter, will now be able to make navigable, without oppoſition, are the noted quarries of Swithland ſlate; a beautiful and durable covering for houſes; and prodigious rocks of that kind of grey porphyry which is brought from Scotland, to pave the ſtreets of London and Weſtminſter.

A great quantity of marle will be thrown out in making the canal; and may beſides, in many places, be found ſo near the banks, as to be delivered from the ſpade into the boats; which will greatly contribute to the improvement of ſuch land as ſtands in need of this kind of manure. Other manures will alſo be procured from large towns, on reaſonable terms, for back-carriage; and as it is intended

tended to exempt manure from the charge of tonnage, these advantages, together with the lime, mentioned before, will double the produce and value of many farms bordering upon the canal.

Several parts of the country, in the neighbourhood of the canal, yield great quantities of that sort of iron-ore, commonly called iron-stone, proper for making cold-short iron; and which, when mixed with the red ore from Cumberland, makes the best kind of tough, or merchant-iron. The iron-stone of this country is likewise so necessary for working the ore in the north, that even the great expence of land-carriage hath not prevented large quantities of it from being conveyed that way to the river Weaver, to be shipped for Cumberland; and the ore from the north has been brought into this country under the like inconveniencies. It seems, therefore, highly probable, that the intended canal will occasion the sending much greater quantities of iron-stone into the north; and the receiving more red mine back in return; and thereby greatly increase the intercourse between these two parts of the kingdom, to their mutual advantage.

Not only these natural productions, that are to be found on the banks of the intended canal, but many of those from the more distant parts of the counties it is to pass through, will have their value and consumption greatly increased, by this easy and cheap conveyance. Of this number are lead, copper, calamine, marble, rottenstone, raddle, white clay, ochres, &c. and many other articles will probably become useful to society, which at present lie unmolested in their native beds.

From natural productions we may proceed to the consideration of those that are cultivated and manufactured; and that which deserves our first attention, under this head, is corn; as the growth and exporta-

exportation of this important article will be greatly increaſed by a new navigation; and the benefit to the public, from the exportation of corn does not ariſe, as in other merchandiſe, only from the employment of our hands at home, the improvement of our eſtates, and the return of wealth, for which it is exchanged abroad; but likewiſe from its being an infallible ſecurity againſt thoſe dreadful famines, formerly experienced in this nation, in years of uncommon ſcarcity.

In the year 1751, an account of the exportation of grain was laid before the houſe of commons; and it appeared that above five millions of quarters of grain were exported from Great Britain in the years 1746, to 1750, both incluſive; and near ſeven millions and a half of money gained by the nation in exchange. And ſince grain has been made an object of foreign commerce, its price has not only in general been lowered at home, but its cultivation has increaſed to ſuch a degree, that a good harveſt is ſuppoſed to be a proviſion for four * or five years.

The kingdom of England alone, according to Dr. Halley's computation, contains about forty millions of ſquare acres; and of theſe, in the years 1689, when a bounty was firſt given on the exportation of corn, one third part was ſuppoſed to lie in uncultivated commons. No year has elapſed, ſince that time, in which the legiſlature have not paſſed many acts for the incloſure of waſte grounds; whereby the country, in various places, is converted from barren heaths into fruitful fields; yielding

* Sir John Nichols ſays five years; the corn factors in London ſay, not much above two; but probably they do not make a ſufficient allowance for exportation, and the diſtillery.

and repaſſing upon it, is a finiſhing, of all others, the moſt deſireable. And if we add the amuſements of a gondola, that may convey us to many flouriſhing towns, through the moſt delightful valſies in the kingdom; and the convenience of having variety of fiſh, brought alive in well-boats, for our tables; we have articles of luxury, which the inhabitants, in other ſituations, wiſh for in vain.

So many, and important, are the advantages that will undoubtedly ariſe to the public from the intended canal, that, we preſume, an attentive conſideration of them, muſt convince every one, that they infinitely outweigh all the inconveniencies that can be ſuppoſed to attend it: and it is to be hoped, every friend to his country will be cautious of giving weight to trivial inconveniencies, in oppoſition to a work of this immenſe importance; eſpecially at a time when our manufacturers are ſuffering, for want of the uſual demand for their goods; and when ſeveral rival nations, as well as our own colonies, are availing themſelves of this opportunity, to ſeduce our workmen, in many branches, to leave the country, and contribute to the ſupport of theſe alarming competitors.

Some of the objections, that may be urged againſt this navigation, have already been obviated; and thoſe that remain, do not ſeem to be well-founded, or of great importance. It may be ſaid, that many eſtates will be divided by the canal: but, as in ſeveral parts, it will be carried through uncultivated commons, and lands that want draining: as a full compenſation will be paid for the ground that is cut through; and as the farms will be again connected, by bridges and fords, at ſuitable diſtances; it is preſumed no inconveniences will proceed from this circumſtance, which are not amply counterbalanced by the many advantages, that have been be-

fore pointed out, and must evidently arise to every farm through which it may pass.

Nor must we here omit the trite objection of the dishonesty of watermen, that they will pilfer fruit and poultry in their passage. But, certainly, this class of travellers may be ranked, in point of honesty, with the common carriers; and as one man and a boy, will be sufficient to attend the conveyance of twenty tons of goods along the canal, which by land would require the attendance of ten persons, the number of these dangerous visitors will be greatly decreased.

The only remaining objection, that has occurred to us, is, that by an inland navigation, between the ports of Liverpool and Hull, the coasting trade, that great nursery for seamen, will be diminished. To which it may be answered, that, in the first place, there is little or none of that trade between those two ports. Secondly, that as this inland navigation will give an opportunity for a more easy conveyance of the products of the interior parts of the country, to the neighbouring ports, which may from thence be conveyed, by sea, to distant parts of the kingdom, from whence other products and commodities may be returned; the coasting trade must hereby be greatly promoted. And lastly, as this navigation will contribute to increase the produce of our farms, will benefit our present manufactures, and occasion the establishment of new ones, it must, of course, enlarge the amount of our exports; and, instead of lessening, have a direct tendency to augment the quantity of our shipping, and the number of our seamen.

It must also be observed, that when the other parts of this great design are executed, and the principal ports and manufacturing towns of the kingdom, come to have a reciprocal inland communication

nication by water, then, though the coasting trade may be diminished, the export trade will not only be inconceivably enlarged, but the internal national commerce be carried on with much more ease and dispatch; less exposed to expensive and hazardous delays; and perfectly secure, in time of war, from the depredations of an enemy.

How far these favourable circumstances must contribute to enhance the value of our lands; to promote the wealth, strength, and splendour of this nation; and to confirm, and perpetuate, the peculiar blessings and privileges of its inhabitants; is referred to the imagination of every intelligent reader.——The prospect is delightful!——Patriot minds will dwell upon it with pleasure, and be employed in projecting schemes to realize it, in its whole extent.——But our present attention must be confined to one part of the general design: and, no doubt, many advantages to be expected from the navigable canal, now under consideration, will occur to the reader, that have escaped our notice: those that have been pointed out are, however, very numerous and extensive.

To have the means of conveyance so greatly facilitated; the price of carriage so much diminished; old manufactures encouraged; new ones established; estates greatly improved; plenty widely diffused; and the country, in general, rendered still more affluent, populous, and secure; are considerations of such weight, as cannot fail to interest all benevolent and public-spirited persons, in the success of this important undertaking.

The progress already made in this design, may be seen by the following papers:

EXTRACT OF A LETTER FROM LIVERPOOL.

December, 1765.

Our attention here is greatly engrossed by a grand design, which has been projected for making an inland navigation between this place and Hull, by means of a canal, from which several branches are to extend to the great trading towns of Birmingham, Litchfield, Newcastle, and Tamworth. Various methods have been suggested to accomplish this vast plan; and, among others, it has been proposed to form a communication between the intended canal and his grace the duke of Bridgwater's navigation; but this intention is strenuously opposed by some Cheshire gentlemen, who are proprietors of the Northwich navigation, and who meditate a scheme for carrying that on from thence to Macclesfield, Stockport, and Manchester, with a view to surround his grace's navigation, and deprive the country of any possibility of ever having it extended either into Staffordshire, or any other part. You will scarce believe, my dear friend, that private interest could thus actuate a set of gentlemen to form a design so injurious to the adjacent countries, and so detrimental to the noble duke, who had the uncommon spirit to risk so great a part of his fortune for improving the construction and management of navigable canals, which he has brought to such perfection as has even exceeded expectation. The service he has thereby rendered to the town and neighbourhood of Manchester, has endeared him to the country, more especially to the poor, who, with grateful benedictions, repay their noble benefactor.

His

His grace, however, is not only intitled to public gratitude for the benefit he has already diffused, but he has a claim to aid and support from the benevolent and disinterested, who will be forward to assist in promoting the good effects which are farther to be expected from the future progress of this noble undertaking. The superior advantages attending a communication with his grace's navigation are so obvious, that it is hoped the selfish and circumventing plan projected by these gentlemen, to frustrate the benefits which may be derived from it, will be discountenanced by every one who has power or influence to defeat such an ungenerous and injurious attempt.

THE CHESHIRE GENTLEMEN'S PROPOSAL FOR MAKING A CANAL FROM WINSFORD TO CHECKLEY-BROOK.

Whereas, at a general meeting of the trustees of the river Weaver, held at Northwich, in the county of Chester, on Thursday the 5th day of December, 1765, a plan was produced for extending the navigation of the said river, from Winsford-Bridge in the said county, to the river Trent, in the county of Stafford; and it was then ordered, that further surveys should be made, and plans taken, to promote a communication from the Trent to the river Severn.

And whereas it appears, by surveys since taken, that the most proper method to carry the same into execution, is by making a canal from Winsford-Bridge, which is near the center of the said county of

of Chester, to Checkley-Brook near Wine-Hill, upon the borders of the county of Stafford, from whence it is practicable to join the Severn and Trent by canals, and thereby open an inland communication, between the great ports of Liverpool, Bristol, and Hull, which is a much more extensive plan for the benefit of trade, than any other that has yet been proposed; and it is computed, that the tonnage necessary to be imposed on all goods passing on the said new navigation, from Checkley-Brook to Winsford-Bridge, which is twenty-one miles, or thereabouts, will not exceed 1 s. per ton, so that, including freight and tonnage, all heavy goods may be carried from the termination of the said navigation at Checkley-Brook to Liverpool, which is sixty miles, or thereabouts, for 6 s. per ton, at most.

It is therefore hoped, that any Gentleman or tradesman, of the trading towns of Lancashire or Staffordshire, or others, who may be affected by such undertaking, or have any method to propose of rendering the above scheme more effectual for the service of the public, will be so obliging as to give their attendance at the adjournment, at the general meeting of the trustees of the river Weaver, on Wednesday, the 25th day of January next, at the Angel in Northwich, when a petition to parliament, for leave to bring in a bill, for carrying the said scheme to Checkley-Brook into execution, will be offered to be signed by the gentlemen present, if approved of.

By order of the trustees,

J. BRAYNE, Clerk.

ANSWER TO THE LIVERPOOL LETTER.

To the PRINTER, *&c.*

SIR,

In your paper of the 14th instant, you have inserted an extract of a letter from Liverpool. It containing injurious reflections on a great number of gentlemen of the highest character, you are requested to insert the following remarks upon it.

That the letter-writer may not complain of being misrepresented, I shall repeat the substance of his extraordinary production.

He first informs us of a grand design projected for making an inland navigation betwixt Liverpool and Hull, by means of a canal; and that such a canal is proposed to communicate with his grace the duke of Bridgwater's canal.

That this is opposed by the Cheshire Gentlemen, who have meditated a scheme for carrying on a navigation from Northwich to Macclesfield, Stockport and Manchester; with a view to surround his grace's navigation, and deprive the country of ever having any possibility of extending a canal into Staffordshire, or any other part.

That it is scarce to be believed, that private interest should thus actuate a set of gentlemen to form a design so injurious to the adjacent countries, and so detrimental to the noble Duke, who had the uncommon spirit to risque so great a part of his fortune for improving navigable canals.

He then tells us the vast service his grace has been of, to the town of Manchester, and how much he has endeared

endeared himſelf to the poor; and that he has a claim to aid and ſupport from the benevolent and diſintereſted, who will be forward to aſſiſt in the promoting the good effects which are to be expected from the future progreſs of his noble undertaking. The ſuperior advantages attending a communication with his grace's navigation are ſo obvious, that it is hoped the ſelfiſh, and circumventing plan, projected by theſe gentlemen, to fruſtrate the benefits which may be derived from it, will be diſcountenanced by every one who has power and influence to defeat ſuch an ungenerous attempt.

If I had not read ſuch a letter in your paper, I could not have believed it poſſible for any man, even of the worſt character, to have publiſhed to the world ſo many falſhoods and miſrepreſentations, with a view to reflect on a great number of gentlemen of fortune and high character, and of as ſtrict honour as many who bear high titles.

The writer aſſerts, that the Cheſhire gentlemen meditated the ſcheme of a canal from Northwich to Macclesfield, &c. with a view, &c. as above.

Now it unluckily happens, that the ſcheme was not meditated by the Cheſhire gentlemen; conſequently all that the writer has ſaid about their views, in regard to ſurrounding the duke's canal, and being actuated by private intereſt, is calumny founded upon falſhood.

The plain truth of the matter is as follows: ſome merchants and traders (not the ſet of gentlemen hinted at) planned a ſcheme for an inland navigation, by means of canals, from an excellent navigation near Northwich, to or near the market and trading towns of Knutsford, Macclesfield, Stockport, and Mancheſter.

This ſcheme was firſt ſhewn to a few, and public notice given for a general meeting, to hear and

consider the proposals then to be offered. Pursuant to such notice, above forty gentlemen and traders met, heard, and considered the scheme proposed; and most of them then declared their approbation of it. But that they might not be too hasty in coming to a determined resolution, another meeting was appointed; a bill was desired to be prepared against that time. At the second meeting, it was unanimously approved, as a scheme apparently beneficial in its consequences, both to trade and the landed interest.

There can be no need to say any more in vindication of the conduct of the Cheshire gentlemen.

It may not be improper, however, to observe, that the course of the intended canals will be from a different navigation near the center of the county, a great many miles distant from the duke's canal, and is to pass cross the middle part of the county, to several market-towns in it, and will be never near his grace's canal till it approaches Manchester in the next county. His grace's canal runs upon the borders of the county very near, and almost parallel to another old navigation; for the perfecting and maintaining of which, many persons had risqued a great part of their fortunes.

It is not by the last famous act (so injurious to the proprietors of the old navigation;) which the duke obtained, that Manchester receives the advantages arising from his coals. His first, or second act, enabled him to make canals from his coal-pits to Manchester; and consequently had he never obtained the last act, he would have been equally intitled to the endearments of the poor, and the sole merit of bringing his own coals (for which he had little sale before) to a good market.

I shall take the liberty of hinting some material differences between his grace's bill, and that now to

be offered to parliament. His grace is the ſole proprietor of one navigation; he is intitled to the whole tonnage of 2 s. 6 d. though a boat ſhould go but a ſingle yard upon it. The other will be carried on by an open ſubſcription, any one may be a proprietor, and the tonnage is to be divided, and paid only in proportion to ſuch certain diſtances as boats ſhall navigate on the canals.

Perhaps the letter-writer may expect ſome notice to be taken of two other aſſertions of his; viz. that the Cheſhire gentlemen intend to oppoſe the grand deſign of a canal or inland navigation from Hull to Liverpool. Who told this author ſo? He has a fine invention and rare aſſurance to aſſert any ſuch thing. He goes on, and ſays, the communication with the duke's canal will be cut off: if the duke intends to finiſh his canal, according to his act, down to the Hempſtones near Runcorn on the river Merſey, his canal will run many miles within a very little ſpace of that river on the furtheſt confines of the county of Cheſter from Staffordſhire. And let any one look at a map of Cheſhire, and tell me, whether it can be imagined, that in caſe a canal or an inland navigation ſhould be made betwixt Hull and Liverpool, it is ever likely to join the duke's canal, unleſs for the ſake of ſerving private purpoſes, a country is to be cut through a great many miles unneceſſarily; for certainly as good a navigation as the duke's may be found much nearer for ſuch a canal to fall into, and a great expence ſaved and needleſs damages avoided. Thus it is far from being obvious, that a benefit will accrue by joining ſuch a canal with the duke's canal.

The letter-writer tells us alſo, that a navigation from Northwich to Maxfield, &c. will prevent any poſſibility hereafter of extending a canal into Staffordſhire,

ſhire, or any other part. This aſſertion alſo is falſe; as for inſtance,

The Cheſhire gentlemen, ſince the meeting upon the ſcheme propoſed by the merchants as mentioned above, have had ſurveys laid before them, by which it appears, that a canal may be made from Winſford Bridge in the centre of the county (and from whence there is now a navigation down the river Weaver for boats of large burthen to Liverpool) to Cheekly Brook on the borders of Staffordſhire, and that from thence it is practicable to extend canals to the Trent, and alſo to the Severn, without cutting through mountains at an immenſe expence. This is ſurely a more grand deſign (to uſe the letter-writer's words) than has yet been propoſed. It will open a communication, betwixt not only Liverpool and Hull, but between thoſe great towns and Briſtol; and by branches as eaſily communicate with Birmingham, &c. as by the ſcheme called the Wielden Ferry ſcheme.

The Cheſhire gentlemen will undertake at a moderate tonnage to make a canal from Winsford Bridge to go near the town of Namptwich to Cheekly Brook: they would not preſume to interfere with the gentlemen of Staffordſhire and Derbyſhire, in regard to proceeding further on the plan; but ſubmit it to them to conſider of the utility of the ſcheme, and whether it may not be more beneficial to them and to the public in general, than any propoſal yet offered.

If they ſhould not approve of adopting this plan—ſince a navigation to Cheekly Brook will take a courſe weſt of the other plan for an inland navigation from Hull to Liverpool, it will not, if carried into execution, obſtruct that plan.

The Cheſhire gentlemen truſt to the merits of the ſcheme for a navigation from Northwich to Maxfield,

field, as mentioned above, and to the other scheme of a navigation from Winsford to Cheekly Brook, and hope all disinterested and benevolent persons will give their aid and assistance in espousing them.

An Account of the Meeting at Wolseley Bridge, in order to set on Foot the STAFFORDSHIRE NAVIGATION.

At a meeting held at Wolseley Bridge in Staffordshire, on December 30, 1765, it was unanimously resolved to apply to parliament for leave to bring in a bill for making a navigable canal from Wilden, in the county of Derby, through Staffordshire, to the river Mersey. Earl Gower, lord lieutenant of the county of Stafford; lord Grey and Mr. Bagott, members for that county; Mr. Ashton Curzon, member for Clitheroe; Mr. Anson, member for the city of Litchfield; Mr. Gilbert, member for Newcastle-under-Line, and many others of the principal gentlemen and land-owners of that and the neighbouring counties, as well as several merchants and tradesmen from Liverpool, Birmingham, and other great trading towns, were present.

Lord Gower opened the meeting with a very sensible and elegant speech, in which he expressed his satisfaction in seeing so many gentlemen met together upon so great a design; that he looked upon it as of the utmost consequence to the manufactures of that and the adjacent counties, and to the kingdom in general, and that ever since he had heard of the scheme, it had been his determination to support it with all his interest, both provincial and political; for he was satisfied that the landed and trading interests were so far from being incompatible, that they were

were the mutual support of each other; and therefore his lordship hoped, that every gentleman present would concur with him in endeavouring to carry so noble and so useful a design into execution. Mr. Brindley, Engineer to the duke of Bridgwater, was then examined, and the heads of the plan were also produced, and agreed to, with very little alteration. The necessary steps are now taking for the intended application to parliament.

In the north of Staffordshire, the potters are so sensible of the prodigious benefits that must accrue to their trade, by this intended canal, that on Tuesday night many of them assembled together at Burslem, over a large bonefire, and drank the healths of lord Gower, Mr. Anson, Mr. Gilbert, and the other well wishers to the navigation, with the loudest acclamations of joy.

PROPOSALS for raising the Money for effecting the STAFFORDSHIRE NAVIGABLE CANAL.

At a very numerous meeting of land-owners, Gentlemen, Traders, and manufacturers, held at Wotsley Bridge in Staffordshire, the 30th of December, 1765, it was unanimously agreed as follows:

That application be made to parliament this session, for an Act to make a navigable canal from the river Trent, at or near Wilden Ferry, in the county of Derby, to the river Mersey.

That it will be most convenient for the Execution of this undertaking, if the expences of making and compleating the said navigation, which have been estimated at 101,000 l. were to be distributed into 505 shares, and raised by subscription; and that

no

no one person should have more than 20 shares; and the money to be advanced by each subscriber in equal proportions, as the same shall be wanted, and the shares made transferable by a form to be prescribed by the Act.

That a subscription be opened for a fund, to defray the necessary expences in obtaining the Act; and that the money there subscribed shall, after passing the Act, be repaid to such as shall not be subscribers, and allowed to such as shall be subscribers, in part of payment of their shares.

That a subscription be also opened for the money, which shall be wanted for making and compleating the said navigation, and that fourteen days time be allowed after this day, to compleat the said subscription; and that subscriptions may be entered with Mr. Bentley, at Liverpoole; Mr. Tomkinson, at Manchester; Mr. James Ford, Town-clerk of Congleton; Mr. Sparrow, at Newcastle under Line; Mr. Stevenson, Mercer, at Stratford; Mr. Francis Cobb, at Litchfield; Mr. Boulton, at Birmingham; Mr. Willington, at Tamworth; Mr. Benjamin Mollineux, at Wolverhampton; Mr. Benjamin Cooper, at Walsal; Mr. John Finch, at Dudley; Mr. William Musgrave, at Burton upon Trent; Mr. Samuel Crompton, at Derby; Mr. Abel Smith, at Nottingham; Mr. Samuel Twentyman, at Newark; Mr. Maddison, at Gainsborough; and Mr. Isaac Broadley, at Hull: where books will be kept for that purpose; and an account is desired to be transmitted from each gentleman of the subscriptions at each place, at the end of fourteen days, to the said Mr. Sparrow in Newcastle; and, if the subscription shall not then be compleat, fourteen days more to be allowed.

That if the shares to be subscribed, after this day, shall exceed the number which shall remain unsub-

scribed

ſcribed this day, they ſhall be reduced in due proportion.

That it will be convenient in the execution of this undertaking, if the ſubſcribers were to have votes, according to their number of ſhares, in the annual choice of a convenient number of directors, to be limited in the Act; who ſhall have the management and inſpection of the work, and to have commiſſioners named in the Act, to determine all controverſies and diſputes which may ariſe.

That proper proviſions ſhould be inſerted in the Act, for the making full ſatisfaction to the land-owners and their tenants, for all lands to be taken for the uſe of ſuch navigation, and for all damages both preſent and future, which they may ſuſtain thereby, and for the giving all proper conveniencies to ſuch land-owners and their tenants, the ſame to be determined by commiſſioners, or juries where neceſſary, in the uſual manner.

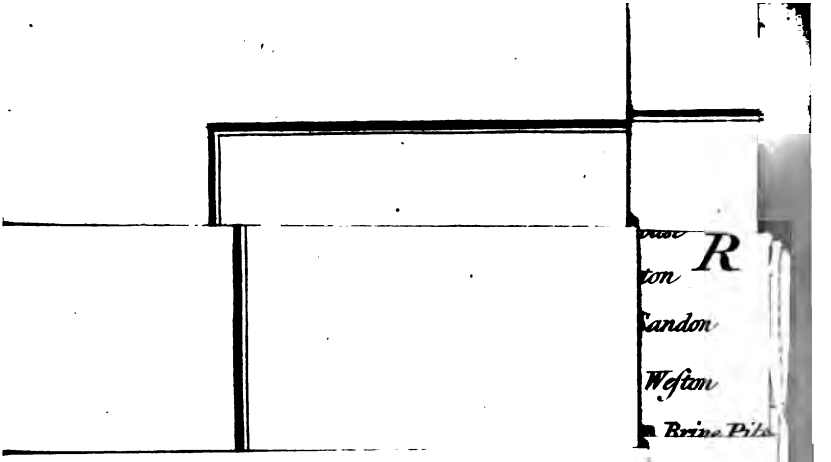
That it be propoſed for the conſideration of parliament, that a proper and reaſonable tonnage be fixed by the Act, in proportion to the diſtance that each veſſel ſhall paſs upon the navigation; and alſo that the ſubſcribers may be paid five per cent. for the reſpective ſums advanced, from the time of their paying in the ſame, till the whole communication ſhall be compleated; and from that time that they may receive their proportion of the profits, according to their ſhares, and that the ſubſcribers be permitted to vote by proxy.

That no toll be taken for ſtone, gravel or other materials for repairing the roads; nor for dung, ſoil, or marle; nor more than half tolls for lime for the improvement of lands.

THUS I have given as fair and conciſe an account of theſe great deſigns as could be obtained; and I heartily

heartily wish, as a lover of my country, and a friend to trade, commerce and manufactures, that those already executed may prosper and spread far and wide their salutary influence; and that those in embryo may be pursued with spirit and steadiness; all private interest be discarded on every side, and all concerned unite as one man in carrying them finally into execution, by which they will leave their names sacred and illustrious to their latest posterity, as friends to their country, and to mankind in general.

FINIS.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THE

HISTORY

OF

ILAND NAVIGATIONS.

Particularly those of the

DUKE of BRIDGEWATER,

IN

ANCASHIRE and CHESHIRE;

And the intended one promoted by

rl GOWER and other Persons of DISTINCTION

IN

TAFFORDSHIRE, CHESHIRE, and DERBYSHIRE.

PART THE SECOND.

ontaining the different Essays which have been lately rote, some to establish, others to prevent, a Navigable anal being made from WITTON BRIDGE to KNUTSORD, MACCLESFIELD, STOCKPORT, and MANCHESTER.

lustrated with a whole Sheet GEOGRAPHICAL PLAN, Shewg, at one View, the Counties, Townships, and Villages through which these Navigations are or will be carried.

LONDON:
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MDCCLXVI.

[Price Two Shillings and Six-pence.]

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SCHEME *for an intended* CANAL NAVIGATION, *from* Macclesfield, *to* Mottram Andrew, *from thence through* Stockport, *to* Manchester, *and from the same Point in* Mottram, *by the nearest Way (consistent with the Levels) to* Northwich.

November 14, 1765.

A Scheme for a CANAL NAVIGATION, from *Macclesfield*, to *Mottram Andrew*, and from thence through *Stockport*, to *Manchester*, and from the same Point in *Mottram*, by the nearest Way (consistent with the Levels) to *Northwich*, having for some Time past been under Consideration, an Advertisement has been lately inserted in the *Chester* and *Manchester* Papers, and also in the *London Evening Post*, for a Meeting to be had at the *George*, in *Knutsford*, on the 3d. Day of *December* next, when and where the Scheme will be produced, in order that the Gentlemen and other Land Owners, likely to be effected by such Undertaking, may know the Intention and hear the Merits of it.

And as every thing relating to this Scheme is intended to be carried on openly, the Design of this Paper, is, in some Measure, to explain (previous to such Meeting) the Nature of the Undertaking, and to shew the Advantages to the Public, and the little Probability of any individuals being Sufferers by it.

THE great utility of such a Navigation, will appear from the savings in the charge of carriage, in the following instances.

 I. The

I. The present carriage of Groceries of all sorts, iron, Irish hides, tallow, butter, &c. from *Liverpool* to *Macclesfield*, is twenty-four shillings per ton, which (according to the calculation now made) will be reduced to eight shillings certain, and probably to six shillings per ton, and in much the same Proportion to *Stockport*; and the town of *Leek*, and the adjacent parts in *Staffordshire*, *Yorkshire*, and *Derbyshire*, will reap the same benefit.

II. The carriage of deal balk and plank, for building, from *Northwich* to *Macclesfield*, at present costs three-pence per foot, which (by the proposed navigation) will be brought to the same place for little more than one half-penny per foot; and the adjacent parts of *Derbyshire* and *Staffordshire*, will of course, have it so much cheaper in proportion; and from hence it seems evident, that the timber on the estates contiguous to the canal, and bought for the *Liverpool* market, will sell as much higher in proportion than at present.

III. Several parts through which the proposed canal will be carried, may very probably be supplied with coals, much cheaper than at present.

IV. The articles of flag, slate, and stone, from *Stiperson*, *Alderney* and *Keyrridge* (great quantities of which are now carried to *Knutsford*, *Northwich*, and parts adjacent, as well as for *Manchester* and *Stockport*, and that neighbourhood) may be carried for less than half the present price; and walling stone may be laid down at all convenient places in the course of the canal, upon very easy terms, for making and repairing the highways, or any other purposes.

V. The owners and occupiers of lands will have the convenience of conveying dung and marl in boats of their own (without paying tonnage) for improvement of their lands adjacent to the canal.

 VI. The

VI. The carriage of ſalt and cheeſe into many parts of the neighbouring counties of *York*, *Derby*, and *Stafford*, and alſo of malt and corn, brought as back carriage from thence, will be much lower than at preſent, and conſequently the price of thoſe commodities be reduced.

VII. The towns of *Mancheſter*, *Knutsford*, and *Northwich*, and parts adjacent, will be ſupplied with lime for manure, as well as building, at about one fifth part leſs than the preſent charge, which muſt tend greatly to the improvement of lands.

VIII. And it is apprehended this ſcheme will be a particular advantage to *Mancheſter* and other trading towns, as an application to parliament is intended for leave to make a navigable canal, beginning at *Whieldon Ferry* (from whence there is already a free navigation through ſeveral parts of *Derbyſhire*, *Leiceſterſhire*, *Nottinghamſhire*, *Yorkſhire*, and *Lincolnſhire* to *Hull*) and to extend by ſeveral branches into *Warwickſhire*, *Staffordſhire*, and *Cheſhire*; in which caſe, by joining that navigation, the *Mancheſter* manufactures, by means of the canal which this ſcheme propoſes, may be carried by water through the counties before-mentioned, to *Hull*, and from thence to *London*.

IX. The *Sheffield* goods and earthen wares made at *Crouch*, and in that neighbourhood, and other manufactures of the counties of *York*, *Lincoln*, *Nottingham*, and *Derby*, and alſo lead, flax, hemp, and many other commodities, may be conveyed by means of this canal, to the port of *Liverpool*, upon much eaſier terms than at preſent.

X. The courſe of the intended canal ranging through thoſe parts of the county of *Cheſter*, (from whence the markets of *Mancheſter*, *Stockport*, and *Macclesfield*, are chiefly ſupplied) the land owners or their tenants, within many miles of the canal,

will be enabled to convey the produce of their farms to thoſe markets, by veſſels propoſed to be ſtationed at convenient places, to go and return at ſtated hours, each market day, with their corn, cheeſe, and other goods, and the owners of ſuch goods may go and return in the ſame veſſels, the expence of which carriage will be much eaſier than at preſent, it being apprehended the ſame will not exceed three-pence an horſe load, and ſo in proportion for more or leſs on any part of the canal.

It is well known, that *Holland*, by canal navigations, has the advantage of every other nation in reſpect of trade, and it is apprehended, that the inland parts of this kingdom, are capable of the like advantage; and how great it muſt be, to this nation, will appear from one inſtance in particular, (amongſt many others which might be given) to wit, that the carriage of iron to and from *Birmingham*, to the neareſt ſea-port, is at preſent twenty pounds to twenty-five pounds per cent.

And with reſpect to any damage which may happen to land owners by the propoſed ſcheme, it is apprehended they will be very inconſiderable.

Becauſe the canal is intended to be only five yards in breadth, and to have fords for cattle and carriages, at every convenient place, from thirty to thirty-ſix inches deep, (and no more) and at each ford to have a plank bridge, for foot paſſengers, placed upon a point, ſo as a man with one hand may bring it to the ſide, when a veſſel muſt paſs through, and when paſſed, with the ſame eaſe, replace it as a bridge.

By this means no fields will be ſo divided, but that there may be a free paſſage, both for foot people, cattle and carriages, from one land to another.

And

And the narrowneſs of the canal (which with the towing paths will be but about nine yards in breadth) reduces the quantity of land, to be purchaſed for the purpoſe, to one *Cheſhire* acre and an half per mile, or thereabouts.

But whatever unavoidable damages may happen, it is intended that proper proviſions of recompence ſhall be made to all perſons who may be affected by the undertaking,

It is propoſed by this ſcheme, that the tonnage ſhall be limited ſo as not to exceed 2 s. 6 d.—That (ſubject to ſuch tonnage) the navigation ſhall be free to every perſon, and that all reaſonable advantages in reſpect to wharfs, warehouſes, &c. ſhall be reſerved to the land owners.

A ſubſcription will be opened at *Knutsford*, on the day fixed by the advertiſement before-mentioned, when calculations of the Expence, likely to attend the undertaking, and alſo the profits which may ariſe from the tonnage, will be produced and any gentleman diſpoſed to encourage the undertaking, will be at liberty to ſubſcribe any Sum not leſs than 500 l.

N. B. ſome gentlemen of fortune have propoſed to apply to parliament, at their own expence, for an act to carry this ſcheme into execution, and are willing to be large ſubſcribers themſelves to the undertaking: and this invitation to a ſubſcription, is not from any doubt, but that it will ſoon be filled up, ſeveral other perſons having already propoſed to ſubſcribe conſiderable ſums.

A STATE OF FACTS, *tending to shew the Utility of the proposed* CANAL NAVIGATION *from* Witton *near* Northwich *to* Knutsford *and* Macclesfield, *and by* Stockport *to* Manchester.

THE rivers *Weaver* and *Mersey* (the latter of which falls into the western seas) were by nature navigable from *Liverpool* to *Frodsham* bridge, in the county of *Chester*.

By an act of parliament that passed (7th *George* I.) certain trustees were impowered to make the *Weaver* navigable from *Frodsham* Bridge to *Winsford* Bridge, in the same County. And by the same Act, they were also impowered to extend such navigation, by making *Witton Brooke* navigable, from its junction with the *Weaver* up to *Witton* Bridge. These navigations have been long since perfected, and trade and commerce thereby extended, to the great benefit of the public.

The north-eastern parts of the county of *Chester* lie remotest from those or any other navigations, although, from the circumstances of their situation and produce, the number and employment of their inhabitants, they want them most.

The canal navigation, now proposed, is designed to be carried from the navigable part of *Witton Brooke* at *Witton* Bridge, near *Northwich*, to the market towns of *Knutsford*, *Macclesfield*, and by *Stockport* to *Manchester*.

This navigation will, in common with others, have all the general advantages of navigation.

And the peculiar utility of this plan will appear from the particulars following:

The greatest part of the county, through which the canal is intended to pass, is very populous, and several valuable manufactures are carried on there, by

by which many thousands of industrious poor subsist.—It is apprehended this circumstance alone will greatly recommend a scheme, which by cheapening carriage, tends directly to reduce the price of provisions, and consequentially the price of labour.

Many articles of these manufactures, and other goods and merchandize from those parts, may, by this canal, be conveyed to the port of *Liverpool*, and to and from one market-town to another, and the interior parts of the country, for one half, and others for one third less than the price of the present carriage.

There is a great land-carriage of salt, cheese, oatmeal, and other commodities, from distant parts to *Macclesfield*, *Stockport* and *Manchester*, which are chiefly consumed in *Yorkshire* and *Derbyshire*, bordering on this part of the county of *Chester*; in return for which, wheat, malt, flour, and other commodities of those counties, are brought back for consumption in *Lancashire* and *Cheshire*; there will be a saving in the carriage of these commodities, by the proposed canal, from one-half to three-fourths.

Upon the confines of *Chester*, near to *Buxton* in the county of *Derby*, there is an inexhaustible fund of limestone, from whence the greatest part of *Cheshire*, the town of *Manchester*, and the adjacent country, is supplied by land carriage.

By the proposed canal, all the interior parts of the county of *Chester*, and many parts of *Lancashire*, may be supplied with lime for building and manure, at one-fifth part less than the present price.

In the hills about *Macclesfield*, and other parts near the course of the canal proposed, are great quantities of flag, slate and stone, which may be conveyed to distant parts, where great quantities

are uſed, for leſs than half the preſent prices; and ſtones for fence walls, and repairs of the highways, laid down at all convenient places in the courſe of the canal, upon very eaſy terms.

As this canal will paſs through that part of *Cheſhire*, from whence the markets of *Mancheſter*, *Stockport*, *Macclesfield* and *Knutsford* are ſupplied, the produce of farms may be conveyed to theſe ſeveral towns, by veſſels ſtationed at the moſt convenient places, and which may go and return at fixed hours, whereby the markets will be ſupplied with more eaſe and certainty, as well as cheapneſs.

But, beſides the advantages already enumerated, another ſtill remains to be mentioned. In that part of the county above referred to, and particularly at *Macclesfield*, (where many and large manufactures are carried on) there was formerly great plenty of coal (which probably was the main reaſon of their being originally eſtabliſhed in that ſituation) but the coal mines are now nearly exhauſted, inſomuch, that the preſent price of coals there is one-third at leaſt higher than it was ten years ago. And unleſs ſome expedient is contrived to reduce the price, the manufacturers muſt, in a ſhort ſpace of time, either remove or be ruined; the canal propoſed, will paſs near other coal mines, ſome of which are already in working, and others may be opened, which will relieve the manufacturers from the preſent ſcarcity, and prevent the decay and deſtruction of trade, ſo important to the public.

As this ſcheme is ſo extenſively uſeful, ſo it has been judged eaſily practicable upon accurate ſurveys. It has been generally and almoſt univerſally approved at three ſeveral county meetings, held in conſequence of public advertiſements for that purpoſe. It is not calculated upon any other principles, but to be carried on by an open public ſubſcription, in which

which many persons of distinguished rank and fortune in the county bear their part. The tonnage to be taken, is calculated at the most moderate rates, and is proposed to be divided and paid only in proportion to certain distances and stages, from and to which the goods shall be conveyed: And it may be proper to be observed, that upon the most reasonable computation of tonnage at the rates proposed, compared with the present charges of land-carriage, the savings to the public are estimated at no less than 7000 *l. per Annum*; and by means of the proposed canal, may probably hereafter amount to double that sum; and that the greater part of the articles on which these savings are computed, come usually from *Macclesfield*, a place, as was before observed, the farthest removed from any Navigation.

The promoters of this scheme can support the facts alledged, by clear evidence.

A design so plainly calculated to serve both the landed and trading interests, and which may co-operate with and greatly assist other plans and designs of the same nature, but can obstruct none, will, it is humbly hoped, deserve the attention and favour of the legislature.

OBSERVATIONS *on the intended Navigation from* Witton-Bridge *to* Knutsford; *and from thence through* Macclesfield *and* Stockport, *to the Town of* Manchester.

THE general utility of inland navigations has been long experienced in foreign countries, and the peculiar advantages which attend them in a kingdom like ours, which derives its welfare and security from the improvement of trade and commerce, has been so clearly demonstrated by some late experiments, that

that the prejudices too usually entertained against all new attempts, seem to be entirely removed; as may be concluded from the many applications now before parliament, for leave to make Navigable Canals.

The practicability of making such canals in the most unfavourable situations, and the preference they claim over river navigations, has been sufficiently proved by the cut which was begun, and is now carrying on, at the sole expence of the Duke of *Bridgwater*; whom the legislature have, from time to time, invested with powers to make a navigable canal from *Worsley* to *Manchester*; from thence by *Stretford*, *Altrincham*, *Dunham*, &c. to the river *Mersey*, at or near the *Hempstones*, under very particular limitations: his Grace being restrained from selling coals at *Manchester*, for more than fourpence per hundred, which were generally sold for six-pence or more, and to the poor in small quantities, at a much higher price, and were likely to be advanced; and also from taking more than six shillings per ton (freight and tonnage included) for conveying goods from *Manchester* to *Liverpool*, which were then conveyed by water at twelve shillings; and, from the difficulties attending the old navigation, were frequently conveyed by land carriage between those towns, at the expence of forty shillings per ton. His Grace has already made great progress in this work, which he has continued about fifteen miles in length, and proposes carrying it on, without a single lock, to the place where it is intended to join the navigation between the *Trent* and the *Mersey*; being about twelve miles farther.

But in order to free the navigation from the great delays occasioned by locks, he has been obliged, at an immense expence, to convey it in some places over large rivers and low grounds; and in others,

to

to make deep cuts, where the ſurface of the land has been above the level.

It is obvious, that very great riſque muſt have attended the progreſs of ſuch an expenſive undertaking, which was to be carried into execution by means of expedients, which, being many of them untried, their ſucceſs was conſequently uncertain. But they were ſo ſkilfully and happily conducted, as to anſwer, and indeed to exceed, all the expectations entertained in favour of the navigation; which has proved of very extraordinary advantage to the town of *Mancheſter* and the adjacent parts; his Grace ſupplying that place with coals at three-pence halfpenny per hundred (being leſs than the price limited by the legiſlature) and likewiſe furniſhing the poor with coals in the ſmalleſt quantities, at the ſame reduced price, being about one third part of what they uſed to pay.

The unexpected ſucceſs which attended the progreſs of this great work, occaſioned an application to the Duke about two years ſince, from *Macclesfield*, deſiring a branch to be extended thither from his canal; but as his navigation was not then carried into *Cheſhire*, and as he had ſtill very conſiderable difficulties to ſurmount, in taking it over the river *Merſey*, and the low grounds for a great extent on each ſide that river, the ſucceſs of which was at that time hazardous, his Grace did not then think himſelf in a ſituation to enter into farther engagements; but profeſſed a readineſs to promote ſuch a deſign, when his canal ſhould be ſo far advanced, which now it is, as to admit of ſuch a communication.

The town of *Stockport* was likewiſe deſirous of having a branch extended thither; and petitions to parliament were prepared, with a view to have been preſented for that purpoſe, the laſt ſeſſions; but the intended

intended application being accidentally prevented at that time, it has, at the earneſt requeſt of the town in general, been revived this ſeſſions; and a Bill is now before parliament, to enable his Grace to make the ſame, without the conſideration of any additional tonnage.

But notwithſtanding the many advantages which have been derived from the Duke's navigation, and are ſtill farther to be expected from its extenſion, a new one has been projected, which is to terminate at both ends near the Duke's, and to paſs through the towns of *Macclesfield* and *Stockport*, and in many parts near to the courſe of his Grace's canal; whereby, as will be ſhewn, thoſe towns in particular, and the public in general, would be deprived of many advantages which might be better attained by the extenſion of the Duke's canal, than by means of the navigation which is newly projected.

A bill, nevertheleſs, is now depending in parliament, for carrying this new ſcheme into execution, and a paper has been handed about, called *A State of Facts*, the contents of which paper are evidently founded on miſinformation, or miſapprehenſion. This intended navigation is ſo far from being, as therein ſtated, eaſily practicable, and generally beneficial; that the execution of it will be attended with extraordinary difficulties, and the uſe of it be interrupted by the moſt prejudicial delays, as will evidently appear to every intelligent and impartial obſerver, from the following comparative view of the reſpective merits of the two navigations in queſtion:

The

The whole length of land to be cut, upon the plan from *Northwich* to *Macclesfield*, *Stockport* and *Manchester*, is —	37 Miles.
The whole length of land to be cut, from the Duke's proposed canal between *Sale Moor* and *Stockport*, if a branch was to be taken, from a place near *Cheadle* to *Macclesfield*, is ——	12 Miles.
Difference	25 Miles.

The lockage from *Macclesfield* to *Northwich* by *Motram*, and from *Motram* to *Stockport*:

	Feet.	Inches.	Feet.	Inch.
From *Macclesfield* to *Motram* —	138	7		
From *Motram* to *Northwich* —	235	9		
			374	4
From *Motram* to *Stockport*, at 25 feet above the surface of the water in the river —— —— —			138	3
From thence to *Manchester* it is proposed to be upon a dead level				
Total lockage upon the *Macclesfield* plan			512	7
The lockage from the Duke's proposed canal, from a place near *Cheadle* to *Macclesfield* —— —— —			276	10
Difference			235	9

From the preceding comparison, it appears that by the cut intended from the Duke's canal to *Macclesfield*, there will be a saving in the purchasing and cutting of land, and in making roads, towing paths, &c. of 25 miles; besides the consequential saving in bridges,

bridges, &c. and that there will likewise be a farther saving, in lockage only, of 235 feet and 9 inches.

By reason of this great difference, the communication from the Duke's canal, may be made in less time, and at less expence; and, when made, the conveyance of goods between *Manchester*, *Stockport*, *Macclesfield*, and *Liverpool*, will consequently be much more cheap, convenient, and expeditious, than by the proposed navigation from *Witton-Bridge*.

In short, every public advantage to be expected from a navigation will be more certainly and easily procured by branches from the Duke's canal to *Macclesfield* and *Stockport*, than by the circuity of the plan newly projected: and with regard to that part of *Cheshire*, which lies east of *Preston on the Hill*, *Northwich*, and *Middlewich*, it will in every respect be well accommodated by the communication of the Duke's canal, with the intended navigation between the *Trent* and the *Mersey*, at *Preston Brook*, as they will be continued from thence to *Worsley*, *Manchester*, *Altrincham*, and as far as *Middlewich*, without a lock.

Since therefore no local or general advantage can attend the proposed navigation from *Witton Bridge*, through *Macclesfield* and *Stockport*, to *Manchester*, but what may be attained in a superior degree, by means of branches extended to those places from the Duke's canal; it is humbly presumed, that such a mistaken application will not engage the favour of the legislature.

REMARKS

REMARKS *upon the Observations on the intended Navigation from* Witton-Bridge *to the Towns of* Knutsford, Macclesfield, Stockport, *and* Manchester.

UPON comparing the Observations with the paper they were designed to answer, it is obvious to remark, that the writer has not contested so much as one of the particular allegations in it; but has left the authors of the scheme in possession of all those facts that so clearly prove the utility of their plan.

Instead of any remarks of this sort, the writer very early discovers a partiality to his Grace the Duke of *Bridgewater*'s canal, and a desire, not only to extend the same for the benefit of his collieries, but also to prevent a communication between the navigation of the *Weaver* and the towns of *Knutsford*, *Macclesfield*, *Stockport*, and *Manchester*; and these are in truth the grounds of the whole opposition to the canal proposed.

He admits his Grace was applied to two years ago, to extend his canal to *Macclesfield*, which he rejected; nor is it probable his Grace would have bestowed a thought upon that scheme, if he had not found himself interested, upon this occasion, to exclude the owners of other collieries from the benefit of water carriage, and to prevent a communication with the *Weaver*, in order to secure to himself a more extensive and lucrative monopoly.

However, this writer is very confident that all the advantages of the navigation proposed, may be attained in a superior degree by branches extended from the Duke's canal; which communication may, according to him, be made in less time, and at less expence; and, in order to prove this, he argues thus,

"The

"The land to be cut upon the plan from *Northwich* to *Macclesfield*, *Stockport*, and *Manchester*, is ——— 37 Miles.
"The land to be cut from *Cheadle* to *Macclesfield* is ——— ——— 12 Miles.

Difference 25 Miles."

But, *first*, how has it happened that the land from *Northwich* to *Macclesfield*, *Stockport* and *Manchester*, is taken, in the former part of the comparison, to make so large a number as 37 miles; and the land from the *Hempstones* to *Cheadle*, &c. omitted, in the latter part, in order to leave so small a number as 12 miles? Or, how is the extent of benefit equal, when so large a tract of country is left out of the account?

Secondly, His Grace has no bill for this purpose now depending: the writer forgets how much work of this sort his Grace has upon his hands already: that great part of the navigation to the *Hempstones* remains still to be completed: that the cut to *Stockport* is not yet begun; and, when these are added to the 12 miles from *Cheadle* to *Macclesfield*, how much will it fall short of the 37 miles? Besides, as the object of the proposed navigation is a communication with the *Weaver* at *Northwich*, the Length from the Duke's canal to *Northwich* ought to have been brought into the comparison.

The argument, with respect to lockage, may receive the same kind of answer: the writer ought to have brought into that comparison the lockage down to the *Hempstones*, for the lockage from *Macclesfield* to the *Tideway* will be the same, let the course of the canal vary as it may.

The circuity of the navigation proposed, which this writer condemns, is the very circumstance that gives

gives it the advantage over the cut he proposes: the necessity of taking such a compass arises from the situation and produce of the lands through which the canal is to pass: the present state of their trade and manufactures; their connection with other countries, and those other circumstances which it is needless here to repeat, as they are stated in the former paper, to which no answer has been attempted.

A branch from the Duke's canal, to be made from *Cheadle* to *Macclesfield*, will not answer the purposes proposed by the navigation from *Witton-Bridge* to *Knutsford*, *Macclesfield*, *Stockport*, and *Manchester*; but the design of making such branch appears plainly to be, to prevent a communication between the navigation of the *Weaver* and those towns, and between one town and another; and also, to prevent the owners of the collieries in *Norbury*, and that neighbourhood, from supplying the Towns of *Stockport*, *Macclesfield* and *Knutsford*, and the adjacent countries, with coals, in order that the Duke may supply them with his own coals, and at his own price; the restraint on him, as to the price of his coals, being confined to *Manchester*.

This navigation is not intended to prevent or obstruct either the Duke's canal from *Sale Moor* to *Stockport*, which it is to cross there, or that from the *Trent* to the *Mersey*, which it is to cross about a mile from *Witton-Bridge*; but instead of giving any obstruction to either of them, the promoters of this navigation, who are owners of the greatest part of the lands through which it is to be made, are willing to cross the other canals upon a level so as to make a communication with each of them; or to carry this navigation either over or under the others, if the level of the ground, where the crossing shall happen, will admit of it.

Upon the whole, the following queries are proposed to the consideration of the writer of the Observations, and also of the public.

First, Whether it is reasonable that the Duke should be impowered to extend his canal wherever he thinks proper, through the lands of the gentlemen in *Cheshire*, in order to bring his coals to a better market; and that the *Cheshire* gentlemen, who have collieries there, should be denied the liberty of making a canal to accommodate their neighbours with their own coals, though, by reason of the shortness of the carriage, they may afford to sell their coals at a cheaper rate than the Duke can afford to sell his?

Secondly, Whether the fire-engine, which has been set up at the colliery in *Norbury*, to accommodate the country with coals, is not attended with great expence, and must not continue to be so, let the sale be greater or less; and whether the *Norbury* coals are not now sold at *Stockport*, though brought thither by land carriage, as cheap as the Duke now sells his at *Altrincham* or *Manchester*; and whether the owners of the collieries in *Norbury*, and that neighbourhood, may not afford to reduce the price of coals at *Stockport*, when brought thither by the proposed canal; and whether they may not, by means of the canal, afford to supply the country adjacent thereto, much cheaper than the Duke can?

Thirdly, Whether the Duke's reducing the price of coals at *Manchester* from four-pence to three-pence halfpenny *per hundred*, as mentioned in the Observations, was of choice, or through necessity, by reason of other coals being brought thither by land-carriage, and with which a great part of that town is now supplied?

Fourthly, Whether the extending the navigation from *Witton-Bridge* to *Knutsford*, *Macclesfield*, *Stockport*,

port; and *Manchester*, will not be more for the good of the public, and supply those towns, and the adjacent country, with all necessaries for the support of their markets and manufactures; and also with coals, lime, slate, flag-stone, &c. better than a branch from the Duke's canal between *Cheadle* and *Macclesfield*?

Fifthly, Whether, in all cases, it is not better for any town or country to have two supplies than one, and particularly to encourage that supply that will come the cheapest?

Sixthly, Whether the proposed canal from *Witton-Bridge* (subject to a tonnage, payable in proportions, according to certain fixed stages) is not more reasonable than that of the Duke's, on which the whole tonnage is payable if a vessel comes upon any part of it; and whether, for this reason, the Duke is not now, and likely to continue, the sole carrier upon his canal; and whether, for the same reason, he will not be the sole carrier upon all branches from it?

Seventhly, Whether, by extending branches from the Duke's canal, in the manner proposed in the Observations, it may not happen hereafter, that the agents of his Grace (abusing his confidence, and without his knowledge and privity) may not, by degrees, monopolize great part of the corn, flour, meal, and other necessaries, for the supply of the towns of *Manchester* and *Stockport*, and dispose of them, or suffer them to be disposed of, at his own warehouses, without being brought into the markets, and make his Grace's exclusive privilege of water-carriage the instrument of the most oppressive exactions?

Eighthly, Whether it is not for the publick good to prevent monopolies, to promote and keep up publick markets, and to open as many communi-

cations for the ſupply of market-towns, and manufacturing countries, and to employ as many different carriers as may be?

Ninthly, Whether, as the Duke has not been oppoſed in the bill for extending his canal to *Stockport*, it is reaſonable that he ſhould oppoſe the making of the propoſed canal from *Witton-Bridge* to *Knutsford*, *Macclesfield*, *Stockport*, and *Mancheſter*.

CASE *of the* PETITIONERS *againſt the* BILL *for making* A NAVIGABLE CANAL *from* WITTON BRIDGE *to ſeveral Places therein named.*

THE general advantages attending inland navigations have been fully experienced, and are univerſally allowed. Nevertheleſs, as in particular ſituations, and under particular circumſtances, they may be more prejudicial than uſeful, the legiſlature will expect the moſt ſatisfactory evidence, that every propoſal of this nature will have a tendency to benefit the public, before they will inveſt the undertakers with thoſe powers over private property, which muſt neceſſarily be granted, for carrying ſuch propoſal into execution.

Public utility therefore being the only conſideration which can induce the legiſlature to countenance ſuch undertakings, it is by this teſt that the merits of the propoſed navigation from *Witton Bridge* to the ſeveral places mentioned in the bill, muſt be determined: And if it ſhall appear, that the execution of the projected ſcheme, ſo far from being uſeful, will be injurious to the public; that it will be attended with no general benefit, adequate in any degree to the injury which will be done, by cutting through lands againſt the conſent of the owners, and

diverting of water from mills, in which not only the proprietors, but the public in general are interested.——If it shall appear likewise, that so far as it may, at the expence of such injury and devastation, be rendered of partial use; that every such purpose may be better answered by means of other navigations already authorized to be made, and the progress of which it will prevent or impede; then a proposal, so highly injurious, will be rejected without hesitation.

It is alledged in the preamble of the bill, that the extending the navigation of the port of *Liverpool*, to the trading towns of *Knutsford*, *Macclesfield* and *Stockport*; and from thence to *Manchester* and the adjacent country, will tend to the benefit of trade and commerce, and be of great public utility. But in order to shew on what mistaken or fallacious grounds these allegations are founded, it will be material to observe, that with respect to *Knutsford*, it is very improperly classed among the trading towns; for the trade there carried on is too inconsiderable to afford exportation of any great profit or convenience from the freight of goods between that town and *Liverpool*.

As to *Macclesfield*, to which the course of the proposed canal is in the next place to be shaped, it is admitted to be a place of considerable trade: but this trade consists chiefly in the manufacture of silk and of mohair buttons; and it cannot be even pretended that any part, either of the raw materials for these manufactures, or of the goods when manufactured, will be conveyed by means of the intended canal: For the weight is so inconsiderable in proportion to the value, that they will be sent, as now, by land-carriage: and as to the conveyance of copper and copper ore, with some other articles of commerce, it cannot be supposed that they will coun-

tervail the expence of making a canal, which at a fair eſtimation will amount to near 80,000 *l.* eſpecially as a communication might, if thought neceſſary, be opened between thoſe towns, by another more expeditious, cheap, and convenient paſſage.

The next town to which the courſe of the propoſed canal is to extend, is *Stockport*; and, with reſpect to this town, it may be affirmed, that was the propoſed navigation to be even free from tonnage, no goods would be conveyed upon it between that town and *Liverpool*; as the conveyance thereby would not only be ſeveral miles farther, than by the duke's canal; but the former would likewiſe have many more feet of lockage upon it, beſide the inconvenience of being obliged to paſs thro' the *Northwich* navigation, which is liable to various obſtructions from the neap or low tides, as well as from floods; not to inſiſt on the delay and damage which muſt enſue from the neceſſity of tranſhipping goods.

From *Stockport*, the intended navigation is to terminate at *Mancheſter*: and the ſame reaſons which prove it uſeleſs to the former, evince much ſtronger the inutility of it to the latter; for, on comparing the duke's canal with the intended navigation, in reſpect to the conveyance between *Mancheſter* and *Liverpool*; the diſtance, the difference of lockage, and the obſtructions of the *Northwich* navigation, all concur to eſtabliſh the preference in favour of the duke's; and to ſhew the inexpedience of that propoſed by the bill in queſtion: which, ſhould it be carried into execution, to the full extent of the powers therein given, might prove the means of depriving the public of many advantages they now receive, and may farther expect, from the duke of *Bridgewater*'s canal: for the undertakers of the new navigation, being not only impowered to take any brooks, ſtreams, or watercourſes, within 500 yards, but

but alſo, with the conſent of the commiſſioners, within 1000 yards of the intended canal; and, with the conſent of the land-owners, to make any locks, ſluices, or other conveniencies, without reſtriction or limitation, for carrying goods to or from the ſaid canal; it may, without any unreaſonable jealouſy, be apprehended that they mean to withdraw the water which now ſupplies the duke's navigation, to the ruin of the works already conſtructed, and the prevention of any farther progreſs.

A power of this extent, muſt alarm every one who is ſenſible of the public benefits which have been derived from his grace's canal, and may yet be expected from its extenſion: not to inſiſt on the private injury which the duke will thereby ſuſtain, and which will not be compenſated by promoting any purpoſe whatever of public utility.

Nevertheleſs, ſome plauſible objections have been ſurmiſed to depreciate the duke's navigation, and beget a prepoſſeſſion in favour of the new one.

OBJECTION I.

It is pretended that the acts under which the duke carries on his navigation, are ſo framed, that they ſecure to him a monopoly: and that no one can carry goods upon his canal, without being liable to the whole tonnage of 2 *s.* 6 *d.* *per* ton, although they do not go above 100 yards upon it.

ANSWER.

To this it may be anſwered, that when his grace obtained the acts in queſtion, there were but three navigations in that part of the kingdom; in which the tonnage was in the ſame manner to be taken for the whole diſtance, or any part of it: and, in fact, 3 *s.* 4 *d.* *per* ton is now taken on the *Irwel* and *Merſey*; whereas the duke is confined to 2 *s.* 6 *d.* though his canal is of greater extent, and upon a

new and more expensive plan of execution, and is, to all intents and purposes, a *free* navigation: the 2*s.* 6*d.* likewise includes tonnage and wharfage. And his grace, and all persons navigating upon his canal, are restrained from taking more than 6*s.* *per* ton, (freight, tonnage, and wharfage included) for conveying of Goods between *Manchester* and *Liverpool*; which were then conveyed by water at 12*s.* and from the difficulties attending the old navigation, were frequently conveyed by land-carriage between those towns, at the expence of 40*s.* *per* ton. His grace likewise was restrained from taking more than 4*d.* *per* hundred for coals at *Manchester* and *Salford*, which were generally sold for 6*d.* or more; and to the poor in small quantities at a much higher price, which was then also likely to be advanced. No such limitations or restrictions appear in any of the acts for the other navigations, nor in the bill for the canal from *Witton-Bridge*, now under consideration.

OBJECTION II.

It is urged likewise, that the more navigations are encouraged, the better it will be for the public, who will be gainers by them if they succeed; whereas, if they miscarry, the undertakers will be the only losers.

ANSWER.

But it is obvious, that all supplies should be adapted to the extent of the demand there is for them; and however it may be pretended that the undertakers of ill-advised enterprizes will be the only losers by their miscarriage, yet it is evident that they cannot suffer alone. For if their plan fails in the execution, it will not only be attended with a great waste of private property, but a considerable quantity of lands must long lie totally useless, and be lost to the common stock. With respect

ſpect to the caſe in queſtion, however, the miſchief will be more immediate and certain, ſince the new navigation cannot ſucceed in any degree, without deſtroying or injuring one more beneficial to the publick.

OBJECTION III.

It has been inſinuated likewiſe, that it would be unreaſonable to reſtrain the gentlemen of the county of *Cheſter*, from making a navigation through their own eſtates.

ANSWER.

To which it may be replied, that this is ſo far from being founded on fact, that they have not been able to obtain conſent from the proprietors of lands to the extent of many miles; beſide, no one ſhould be allowed to uſe even his own property to the injury of individuals, much leſs of the publick: and it is apparent, that if the intended navigation ſhould be carried into execution, not only the property of ſeveral land-owners, who petition againſt the bill, will be mutilated againſt their conſent, but manifeſt injury will be done to the proprietors of ſeveral mills, by diverting their water, not only to their prejudice, but to the great detriment of the public, who are intereſted therein, and for which no ſuitable recompence can be made.

Under theſe circumſtances therefore, when it is conſidered, that the oſtenſible plea of public utility, by which it is attempted to ſupport this bill, and which is the only juſt principle on which all undertakings of this nature can be countenanced—when this plea is evidently groundleſs and fallacious; when it is ſeen, that ſeveral inhabitants of thoſe very towns, who it is pretended will receive benefit from the ſcheme, as well as ſeveral land-owners and proprietors of mills, have petitioned againſt it, as being likely to prove, not only uſeleſs, but injurious

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to themſelves and to the public; when it appears likewiſe, that the execution of this plan would intercept the ſupplies of water, which have been granted to his Grace, and brought to his canal at an immenſe expence, and thereby prevent the completion of the navigation the Duke is authorized to make, and deprive the publick of the advantages they would reap from the progreſs and perfecting of ſo uſeful an undertaking.—It is preſumed, that the legiſlature will not give the ſanction of their authority to an attempt, which in fact is calculated to elude their own acts, by fruſtrating and preventing the execution of powers, which they themſelves have granted, after the moſt ſolemn deliberation; eſpecially as thoſe powers, ſo far as they have been executed, have proved of acknowledged publick benefit; and the plan ſet in competition with it, does not bear even a probability of any ſuch tendency, but on the contrary, will be attended with immediate and certain injury, both to individuals and to the Publick.

CONSIDERATIONS *on the* BILL *now depending in Parliament, for making a* NAVIGABLE CANAL *from* Witton-Bridge *to* Knutsford, Macclesfield, Stockport *and* Mancheſter.

THE great object of this bill is, to obtain the benefit of water-carriage for the north-eaſtern parts of *Cheſhire*, which at preſent lie remote from any navigation whatever. The bill hath already paſſed the Houſe of Commons, and ſeems to merit the approbation of the other branches of the legiſlature, both from the ſituation and circumſtances of thoſe who promote, and thoſe who oppoſe it.

The

The promoters of this plan (exclusive of a great body of traders and merchants) are a considerable number of persons of the highest rank and property in the counties through which the canal will pass. Can it be supposed these gentlemen do not understand the exigencies and wants of the neighbourhood in which they live? Or that they are not competent judges of the probity and skill of those persons whom they have employed to make their surveys and estimates? Or that they would risque their fortunes (as they have done by subscriptions) upon the merits of this scheme, if they were not convinced it was both practicable and useful? This concurrence of circumstances deserves therefore to have great stress laid upon it; because it is the strongest testimony of the best witnesses.

If the sentiments of the owners, through whose lands the canal is to be cut, ought to have any weight (as surely they are of the greatest) it may be observed, that of 37 miles of land, the length of the cut proposed, the owners of 24 miles are strongly for the bill; and the greater part of the others do not oppose it; so striking a disproportion is always attended to, in cases of this sort, where absolute unanimity is never to be expected.

On the other hand, those who have hitherto appeared to oppose this Bill, are far inferior in number and property; and their opposition is plainly grounded on partial and local objections: Two gentlemen will receive prejudice in their mills: This it is granted would be an objection, if the usual provisions of recompence had not been made in the Bill; the rest are chiefly traders, who by their situation, and the nature of their dealings, have at present an opportunity of serving the publick with goods at an advanced price, one of the great mischiefs which this canal is designed to remedy.

But

But the true motives of this oppoſition, will be found in the private intereſt of his Grace the duke of *Bridgwater*; on whoſe behalf (though not in his name) ſeveral objections have been made, which will hereafter be particularly mentioned. For if the communication of the propoſed canal with the river *Weaver* be prevented, and the collieries in *Norbury* and other parts in that neighbourhood excluded from the benefit of water-carriage, and there is no other navigation for the conveyance of corn, meal, and other proviſions from *Cheſhire* to *Mancheſter* market but the duke's canal, the deſign of his Grace's friends will be anſwered, and the monopoly they have in view ſecured.

In ſupport of this oppoſition the following objections have been made.

OBJECTION I.

The ſcheme of this Bill is not practicable.

Anſwer. Thoſe who make the objection do not much rely upon it: If they did, they would not ſay ſo much of the inutility of the ſcheme, and of its interfering with his Grace's navigation. If it be impracticable, nothing more need be ſaid about it.

OBJECTION II.

The tonnage upon this canal will not be adequate to the expence of making it.

Anſwer. Calculations have been made of the expence and probable tonnage by perſons well qualified to make thoſe eſtimates; and the intended proprietors are ſo fully convinced it will be adequate, that they have propoſed a leſs tonnage by about one-third than the duke of *Bridgwater* upon his canal; and as no publick money is aſked, but the whole charge is to be defrayed out of a private fund, it may be well ſuſpected, that ſo much ſolicitude is expreſſed, ſuch vehemence of oppoſition exerted, not

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to prevent the ruin of the undertaking, but the consequence of its success.

OBJECTION III.

The number of locks on this canal must necessarily be so great as to impede the navigation; besides the river *Weaver* with which this canal is to communicate, is an uncertain navigation, the locks often out of repair, and vessels are often neaped at the place where the *Weaver* falls into the *Mersey*.

Answer. The lockage from any given point to the tide-way will be the same which way soever the course of a canal may be; for instance, from *Macclesfield* by *Cheadle* and the Duke's canal to the tide-way, would have as many locks, as from *Macclesfield* by *Northwich* to the tide-way. As to the delay by locks, a vessel may pass a lock in about eight minutes. It is calculated, that from *Macclesfield* to *Northwich*, near 20 miles (in which part the greatest number of locks will be) a vessel may be navigated in about 12 hours. The river *Weaver* is as free from neaps as the *Mersey* at *Runcorn Gap*, the sand banks which chiefly occasion them lying below the junction of the *Weaver* with the *Mersey*, which is considerably below *Runcorn Gap*. The locks on the *Weaver* may be altered at an expence too inconsiderable to need mentioning: and the attempt of his Grace's agents to discredit all river navigations (as they constantly do) must be thought by all impartial persons wild and extravagant.

OBJECTION IV.

The utility of the scheme proposed will not be adequate to the damage it will occasion, not only to private property, but to the public, by the destruction of several mills.

Answer. As to any injury to private property, recompence is provided: There are not above two mills upon the course of the canal that will be materially

terially injured; and there are other mills in the ſame neighbourhood. Are theſe conſiderations to be put in the balance with an annual ſaving of 7000*l.* and upwards to the public, between the difference of land and water-carriage?

The particular articles with which that part of the country may be ſerved by this, and can be ſerved by no other navigation, have been mentioned in other papers, and will, if neceſſary, be proved hereafter: But the utility that will ariſe to the public from water-carriage for coals, is too important to be paſſed over without particular mention.

The town of *Macclesfield*, where ſome thouſands of poor are employed, is in imminent danger of loſing its manufactures for the want of that commodity; what coal mines they had near them, being ſome intirely, others nearly exhauſted. The collieries at *Norbury*, *Pointon* and *Worth*, lie near to the courſe of the canal propoſed between *Stockport* and *Macclesfield*. *Norbury* alone, it is computed, will furniſh at leaſt 10,000 tons of coals every year, which may be ſold at *Macclesfield*, and alſo at *Knutsford* and the parts adjacent, at 4*d.* for an hundred weight, for which, at the places laſt mentioned, at preſent 7*d.* is paid. Is this no advantage to the public? It was thought ſo great an one in the Duke of *Bridgwater*'s caſe, that his Grace obtained his firſt Act of Parliament upon no other ground, than the benefit that would accrue to the town of *Manchester*, from the cheap ſupply of coals from his Grace's collieries at *Worſley*.

OBJECTION V.

A cut from his Grace's canal from *Cheadle* to *Macclesfield*, would ſerve all the purpoſes propoſed by this ſcheme.

Anſwer.

Answer. It most clearly would not. It ranges though a different part of the country. The whole extent from *Macclesfield* to *Knutsford* and *Northwich* is left unprovided. Can his Grace afford his coals at *Macclesfield*, as cheap as they could be sold there from *Norbury* and other collieries? And if he could (which from the length of carriage is not to be presumed) what provision would there be for *Knutsford*, and the other places upon the course of the canal proposed? Not to mention that his Grace is not obliged, by any thing that yet has passed, to make this cut; nor could he make it for many years, amidst the multiplicity of those works which he already has upon his hands.

OBJECTION VI.

The proprietors, if this bill passes into a law, will be enabled, under the powers therein given, greatly to prejudice the Duke of *Bridgwater*'s navigation, by taking into the proposed canal the waters of several brooks or streams which fall into his Grace's canal.

Answer. The only streams that it is presumed are meant in this objection are three brooks, called *Houghs-end Brook*, *Corn Brook*, and the *Medlock*, all which it is admitted the proposed canal will cross upon high arches, to be made over the same; but the crossing of the *Medlock*, which is near the termination of this canal at *Manchester*, will be above a mile distant from his Grace's canal, and the crossing the other brooks will be at much greater distances; and at all the places where the crossings are to be, the level of the proposed canal will be so much higher than the three several brooks, that the water cannot be taken out of the same into the proposed canal, by any of the powers granted to the proprietors, by the bill; and of this his Grace's agents and friends (who attended the bill through the

the committee of the House of Commons) were so well satisfied, that, although they presented a clause to restrain the proprietors from taking any water out of two other brooks, they took no notice of the three brooks above-mentioned.

As the termination of the proposed canal at Manchester is fixed to a certain place, the level of the canal must be governed by the height of the ground there, and it is well known that the proposed canal between *Stockport* and *Manchester* will be upon a dead level, and will be supplied with water from the *Cheshire* part of the canal, which must be let into it every time a lock is opened, and cannot be returned into *Cheshire*, but must be discharged towards *Manchester*; so that the proposed canal may afford a supply to his Grace's canal, but cannot take any water out of the streams which flow into it.

It is not to be presumed that his Grace's agents and friends (who attended the committee of the House of Commons, and to whom it must have appeared, upon the face of the bill, that the proposed canal was to cross those three brooks) at that time apprehended, that water could be taken out of the same into the proposed canal; for if so, they would no doubt have then made the objection, that provisions might have been made in the bill to prevent the taking out such water; but if, from any information since received, they are now doubtful of it, the proprietors are willing that the bill may be amended, so as to restrain them from taking water out of any of these brooks, or any other brooks that shall appear essentially necessary for the supply of his Grace's canal.

OBJECTION VII.

It is unreasonable, considering the expence his Grace has been at, and the merit of his undertaking, that any other navigation should be made

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to communicate with the places to which his canal extends, so as to deprive him of any advantages which he may expect from his navigation.

Answer. This reasoning directly tends to justify monopolies and exclusive rights, whereas his Grace hath not even the merit of being an original inventor; for the *Sankey* navigation in the same country, is a canal, and was made before his Grace's canal was thought of: And further, this argument, if pursued into its consequences, would prove that his Grace, by making his canal, has been a greater enemy to one part of the country, than he has been a friend to the other.

Public service, as it is the avowed motive and end, so it ought to be the test of all these undertakings. Wherever that is pointed out, the legislature will concur in carrying the scheme into execution. But his Grace's friends ought of all men to be the last in advancing arguments of this sort; which he himself exploded in the case of the proprietors of the *Irwell* navigation. The reasoning on which this opposition is founded, is directly repugnant to the principles which his Grace four years ago asserted, as well as to every principle which hath hitherto been allowed to prevail in a nation of trade and liberty.

Seasonable CONSIDERATIONS *on a* NAVIGABLE CANAL *intended to be cut from the River* TRENT, *at* Wilden-Ferry, *in the County of* DERBY, *to the River* MERSEY, *in the County of* CHESTER.

THE opening a communication between the ports of *Hull* and *Liverpool*, and uniting the eastern

 and

and weſtern ſeas, muſt neceſſarily produce the moſt beneficial conſequences; but this great and important ſcheme [if practicable] may be effectuated, and all the ends of *public utility* anſwered, by making a canal from the river *Trent*, *at Burton*, to the river *Weaver*, *near Northwich*, in the county of *Cheſter*.

This poſition is ſo indubitably clear, that no one (who is not entruſted with the ſecret councels, which direct this arduous enterprize) can ſuggeſt any *juſt* reaſon, for entertaining even a wiſh, to extend the propoſed canal to *Wilden Ferry* (ſixteen miles below *Burton*) at the one end, or to the river *Merſey* (fourteen miles below *Northwich*) at the other.

In the courſe of theſe conſiderations, which are deſigned to convey an exact and comprehenſive idea of the origin, progreſs and conſequences of this vaſt undertaking, conjectures will be riſqued as to the real views which were to be anſwered by this *extraordinary* extenſion; but which, it cannot be doubted, the wiſdom and juſtice of parliament will prevent.

The reſolution of applying "for an Act to make "a navigable canal from *Wilden Ferry*, at the river "*Trent*, to the river *Merſey*" was declared at a public meeting (the only one appointed for the purpoſe) which was held at *Wolſley Bridge*, in *Staffordſhire*, on the 30th of *December*, 1765.

Whether every branch of this mighty project was diſcloſed, to the gentlemen who were then convened; its real object, in its full and *true* extent, underſtood; or its minuter conſiderations entered into and diſcuſſed; certain it is, that it was univerſally conceived, *that the* WHOLE *ſcheme was to be conducted by a company of proprietors*, who were to be erected into a *body* politic and corporate. If other ideas were ſecretly entertained, the Public has been egregiouſly miſled.

In

In consequence of a petition of several gentlemen, land-owners, tradesmen, manufacturers and others, of the counties of *Lancaster*, *Chester*, *Stafford*, *Warwick*, *Derby*, *Leicester*, *Nottingham*, *Lincoln* and *York*, and the town and county of the town of *Kingston* upon *Hull*, presented on the 15th day of *January*, 1766, leave was given on *Friday* the 7th of *February*, to bring in a Bill, "for "making a navigable cut or canal from the river "*Trent*, at or near *Wilden Ferry* in the county of "*Derby*, to or near *Swarkstone* and *Willington* in the "said county, *Whichnor*, *Rudgley*, *Stone* and *Burstem* in the county of *Stafford*, and from thence, "to or near *Lawton* and *Astbury* in the county of "*Chester*, and to the river *Mersey*;" which on the 18th was read the first time, and on the 24th a second time, and committed.

Such has been the preliminary proceeding, and such the petition and the bill; whose only *apparent* object is, "the cutting of a canal from *Wilden* "*Ferry* to the river *Mersey*, *under the direction of a* "*company of proprietors*." But *who* could entertain a *suspicion*, that this petition, thus flowing from a *public* resolution, could *privately* usher in an extension or diversion of the Duke of *Bridgwater*'s canal, "from *Longford Bridge*, in the township of *Stretford* "in the county of *Lancaster*, to the *Hemp Stones* in "the county of *Chester*?"

At the meeting, (the only one which preceded the application to parliament) the patrons of this scheme had neither ingenuity nor courage to disclose its full and real designation; *repeatedly* called upon, they refused to declare, where this great canal was to terminate; its commencement at *Wilden Ferry* they did venture to own; the Public had been given

to underſtand, that * "it was to join with the river "*Weaver* in *Cheſhire*,—or the Duke of *Bridwater's* "navigation,—or the tide way in the river *Merſey*, "as ſhould be found moſt expedient;" but not a ſuſpicion was indulged, that the company of proprietors were to be united with his Grace the Duke of *Bridgwater*;—*nor is it ſo much as known, where this favourite* DIVERSION *is to begin.*

It is not a pleaſant thing to conjecture, by what means his Grace (to whom nothing derogatory is intended) has been introduced into this Bill; nor upon what principle, this darling propoſition can poſſibly be retained; and it may not be improper to enquire, by what daring preſumption this ſtrange authority found its way into the Bill.

If ſuch was the uſe which was intended to have been made of a public application, it would have been manly to have declared it; this duplicity is indefenſible; in matters of ſuch univerſal and eſſential conſequence to property, it is criminal; it is a dangerous, mean and cowardly indeciſion, reſulting from a well grounded apprehenſion, that the ſcheme itſelf would have been publickly diſapproved, had this branch of it even ſo much as tranſpired.

If the company of proprietors meant originally to ſtop at *Preſton-Brook*, what encouragement, what countenance are *they* entitled to, who thus evince, that their undertaking is ſecondary to a deſign, which none of them have had the fortitude publicly to patronize? It might not perhaps be too bold to add, that by this ſingle ſtep they have forfeited all claim to every aſſiſtance from authority.

* See page 55 of the 1ſt part of this pamphlet, printed for T. Lowndes, in Fleet-ſtreet, price 2s. 6d.

Might

Might it not be asked, whether these gentlemen were secretly jealous of some powerful opposition, which they wished to repel by this notable union with the Duke of Bridgewater?

If his Grace is desirous of diverting the course of his former canal, so as to terminate at *Runcorn-Gap* instead of the *Hempstones*, why not cut immediately to *Runcorn Gap?* Why sweep round to *Preston-Brook?* Does public utility require his Grace to interfere with *this* canal in any shape? Why are the company of proprietors prevented from carrying their canal (if it were necessary) to *Runcorn-Gap* at once? And let his Grace, in a future day, meet it there, and carry it over the *Mersey* to *Liverpool*, if he pleases; but let it be done in an open and constitutional manner, by a public petition to parliament, that every one whose inheritance will be invaded by the proposed diversion, may, in consequence of the just, necessary and usual notoriety, have an opportunity of defending his property, of which, by this mode of proceeding, he would be absolutely precluded.

In this place, it must be remarked, that *no petition* was presented, by his Grace the Duke of Bridgewater, *within the time* fixed *for* receiving *petitions for private bills*, which expired on the 15th of *February*.

The intended diversion, which cannot be effected without cutting through several miles of land which is not within the scope of the original petition, is, *to all intents* and purposes, the subject of *a private bill*;—and it is most humbly submitted, that no petition, for a private bill, which is not received within due time, can be proceeded upon, without violating the sacred and indispensible law of parliament.

This petition cannot, it is conceived, be defended as an auxiliary petition; the canal from the *Trent*

to the *Merſey* can certainly be completed without this connection with his Grace; whether the ſchemes of his Grace can be accompliſhed without this junction is a conſideration foreign to this bill; in all events, even if it ſhould promote the mutual intereſt of both canals, let it be the buſineſs of another ſeſſion; let the great and eſſential rules of parliament remain unſhaken; a relaxation in this ſingle inſtance might produce a precedent fraught with the moſt alarming dangers. *Who* cannot ſuppoſe a caſe, in which, in after times, a ſimilar deviation might be uſhered in, with a pretext to the full as plauſible as the preſent, by which the rights of thouſands of innocent individuals might be infringed, without notice, without oppoſition, and without redreſs?

His Grace by his petition [*preſented the* 12*th of* March,—*which is* 25 *days after the expiration of the time for receiving petitions for private bills*] ſtates, "*that* Runcorn-Gap" [where the new canal is intended to terminate] "*at the river* Merſey, *is about* "*two thouſand and five hundred yards from the* "Hempſtones, *and that if his own canal were to be* "*diverted*" [from going on four miles north-weſt to its original deſtination at the *Hempſtones*] "*ſo as to* "*communicate with the propoſed canal*" [by an elbow of four miles ſouth-weſt and one mile ſouth] "*at* Preſton-Brook, *and from thence to be carried on* "*to* Runcorn-Gap," [which will make his a new and different cut of nine miles] "*both navigations* "*will be more compleat and convenient to the public.*"

It is not eaſy to ſuggeſt, why *Runcorn Gap* is ſtated to be *two thouſand and five hundred yards* from the *Hempſtones*; is it meant to impreſs a belief, that the diverſion to *Preſton-Brook* is of no greater diſtance? Hints have been dropt, that his Grace, under his former acts, is authorized to make any diverſion within the compaſs of *two thouſand yards*; is it intended

tended to be insinuated, that by the proposed diversion his Grace will only stretch about *five hundred yards* more?—His Grace has no power under any of his former acts, to divert the *lateral* course of his last canal *two thousand yards*; surely the wise commentators upon these laws do not consider the power delegated under his Grace's first act "to make any "cut, trench, or sluice to convey coals or goods to "his first canal, not exceeding *two thousand yards* "in length, and *sixteen yards* in breadth" as an authority to alter the *lateral* course of any part of his last canal *two thousand yards* at his pleasure.

It is a palpable mistake, to say the best of it; but *Preston-Brook* is not within *two thousand five hundred yards* of the Duke's canal; nor can a diversion of five miles, (for four of which the freeholders of the lands which are to be cut through, and are not within the reach of the original petition, could not have the *regular* information of a scheme, which so nearly affects them,) be possibly covered by any of the authorities claimed by his Grace under his former acts, nor introduced by an auxiliary petition, nor can, in the nature of things, be adopted by parliament, but as the subject of a private bill. The treaty which the company of proprietors have so happily concluded with his Grace, cannot, it is presumed, obviate this difficulty.

The manner of attempting this very dangerous innovation is sufficient to awaken jealousy and excite caution.

This deviation from the avowed plan of the bill, will, we hope, be considered as an absolute departure from the petition.

This bill (were the clauses which affect the Duke of *Bridgewater* even to be dropt) seems, with all due deference, to be extremely defective and indigested, and it is submitted to the honour and candour of its patrons, whether they will pursue it any farther in

this ſeſſion, eſpecially as there is no neceſſity of precipitating an undertaking, which neceſſarily affects the properties of ſo many gentlemen, whoſe eſtates, in ſo vaſt a tract, are to be cut through and ſeparated; and reaſon and juſtice demand, that it ſhould receive, in every point of view, all poſſible deliberation; and perhaps in a ſober and diſpaſſionate reviſion, ſome conciliating expedients may be hit upon, to reconcile even his Grace's propoſition, without jealouſy and without offence to either ſide.

To this indulgence a conſiderable number of gentlemen, whoſe properties are eſſentially concerned, are bold to conſider themſelves entitled; and take occaſion to declare, (and will in due ſeaſon teſtify in a more ſolemn manner,)* "*that no private intereſt* "*actuates them to form a deſign either injurious to the* "*adjacent countries, or detrimental to the noble Duke* "*whoſe uncommon ſpirit*" they profeſs to admire. They are ſuperior to every petty and every perſonal conſideration; they ſcorn to propagate illiberal invectives, and deſpiſe the low and paltry art of miſleading the public judgment by † "*calumny founded* "*upon falſehood.*"

The warmeſt partiſan of the bill will not venture to aſſert, that this very extenſive and very complicated undertaking has, in the uſual manner of proceedings of a like nature, been ſo frequently diſcuſſed at public county-meetings, with the ſolemnity and deliberation equal to the many important conſequences which muſt reſult from it; and it is upon this conſideration (with many more of great weight) that it is ſincerely wiſhed, that the whole matter could be deferred, ſo as to be re-viewed and corrected with the moſt deciſive attention.

But if this wiſh ſhould not prevail, the caſe of thoſe, who conceived themſelves injured, will, it is

* See pamphlet, part 1ſt, page 76.
† Ditto, page 80.

not

not doubted, be duly weighed and considered by a House of Commons, who will not take any man's freehold from him, without full and adequate compensation, nor without evident and irresistible proof of real and imminent necessity, supported by the fundamental principle of public utility.

If this bill must in all events be *now* carried through, it is presumed, that *a series of amendments* which are indeed many in number, and dictated by the nature of the case, (though perhaps not expected by the friends of the bill) but founded in reason and in justice,—will be introduced under the auspices of the honourable House of Commons.

So peculiar has been the fate of this wonderful project, that, in the very first print of the bill, its known, avowed, original destination is varied by a species of management, neither very usual, nor very commendable in public transactions.

By the first enacting clause, [page 2 and 3.] the company of proprietors are "empowered to cut a "canal from *Wilden Ferry* at the river *Trent* to the "river *Mersey*;" but the whole of this power is continued to them no longer, than whilst they travel to page 40, where they are stripped of five miles of their canal; their plan is *there* circumscribed, and their authority divided with the Duke of *Bridgewater*, who is, it seems, to divert the original course of his canal, (which was to terminate at the *Hempstones*,) in order to meet the new canal at *Preston-Brook*, and from thence to carry it on to *Runcorn-Gap*, at the *Mersey*.

Will not this in effect be *two* private bills founded upon *one* petition? Does not the adoption of his Grace *exceed* the line of *reference* to the committee? Does the original petition authorise any proceeding, abstracted from *a power to the company* of proprietors *of cutting the whole* canal? Does the bill *in this point* follow

follow the prayer of the petition? Is a competent notoriety of the propoſed innovation conveyed by the title of this bill? Will not this intereſting, ſecret, and unexampled diverſion, if countenanced upon this occaſion, eſtabliſh a precedent big with danger?

The canal, by this bill, propoſed to be made from *Wilden-Ferry* to the *Merſey*, is near 100 miles in length.

The weſtern part of the *Trent*, from *Wilden-Ferry* to *Burton* (which is near 16 miles) is *already* navigable under an act of parliament of the 10th and 11th of King William III.

The new canal is intended to run nearly parallel with this navigation, for ſixteen miles together, never more than a mile diſtance, but often leſs than half a mile.

From *Witton-Bridge* near *Northwich* to the *Merſey*, which is about fifteen miles, there is an excellent navigable river which was made under an act of parliament of the 7th of King *George* the Firſt. The propoſed canal is to run nearly parallel with this river for fifteen miles together; in ſome part of it within the diſtance of one hundred yards.

Public utility is the charm which is to conquer all things; a communication between *Hull* and *Liverpool*, and uniting the eaſtern and weſtern ſeas is an enterpriſe which may have public utility for its object; but this communication cannot [Meſſrs. Agents and Engineers ſay] be effected without beginning at *Wilden-Ferry* and terminating at *Runcorn Gap*; by cutting the great *Trunk* between *Burton* and *Northwich*, (which would ſave theſe projectors full forty thouſand pounds, and preſerve from depredation two ancient, eſtabliſhed and effectual navigations,) their ideas of public utility will not be anſwered. The communication muſt not be opened, according to

their

their ſchemes, by the juſt medium of the old navigations.

A capital of near forty thouſand pounds employed in theſe two navigations is an object beneath the attention of theſe gentlemen, who have not condeſcended even to treat for a compenſation for the injury that may ariſe to the proprietors; but we truſt, that they will be taught, by the wiſe and juſt deciſion of parliament, that no man's property ſhall be unneceſſarily depreciated, nor large eſtates wantonly devaſted, to try a project, whoſe event is uncertain, depending upon *fallacious* and indefinite eſtimates, and the contributions of numbers, who perhaps, *when more enlightened*, may abandon a ſcheme, which they have been prevailed upon to aſſiſt, by plauſible but erroneous arguments of public utility, and a glaring deception of its *real* deſtination.

It may not be amiſs to remark, that the company of proprietors ſtopping at *Preſton-Brook*, ſeem to have conceded, that a further limitation of their plan may prevail; it is therefore hoped, that they will be confined between *Burton* and *Northwich*; let *that* be the extent of the canal; in a tract of ſeventy miles, they may find room to employ their money and to try an experiment; and it may be equally juſt to extend a ſeaſonable and friendly concern to high and illuſtrious perſonages, by ſetting limits to dangerous and expenſive undertakings, and delivering them from the baneful influence of intereſted and daring projectors.

In ſupport of this idea, wiſdom and juſtice ſeem to dictate, that theſe gentlemen ſhould not be, on any conſideration, permitted, *at preſent*, to meddle with any eſtates beyond *Northwich* or *Burton*, eſpecially as they own, that * "the water which is chiefly

* See firſt part, page 58.

"to

" to ſupport this canal is to be drawn by a grand
" cut to be made at *Hare-Caſtle*, twenty miles ſouth
" of *Northwich*, which is the higheſt part in the
" courſe of the canal, and where the water falls north
" and ſouth, and where this canal is to be carried
" above a full mile under ground."

Suppoſe this branch of the project ſhould miſcarry, (and many people, who, in point of judgment, capacity and experience, equal *at leaſt* to the ableſt of the managers, are not clear in their ideas of its practicability,) what a dreadful ſituation will the land-owners be in, whoſe eſtates will have been ſeparated, mangled, and perhaps ſpoiled, beyond all poſſibility of reparation?

Are not theſe conſiderations, which ſhould influence thoſe who are inveſted with authority, to keep a ſevere and jealous eye upon ſo dangerous and ſo important an undertaking,—whoſe fate thus entirely depends upon ſpeculation.

Is not the preſervation of a tract of land for thirty miles, from inſolent, cruel and unneceſſary devaſtation, an object worthy of the attention of parliament? Is not a delegation of power to invade all property indiſcriminately, for ſeventy miles together, enough to be entruſted with *any* claſs of undertakers *at once?*

Are theſe gentlemen jealous, that when they ſhall have effected their canal from *Burton* to *Northwich*, the legiſlature in after times will be leſs benign to them, and *unkindly* withhold from them an authority to extend it at both ends, when they will have clear and deciſive proof of the *practicability* of their ſcheme, the *neceſſity* of the deſired extenſion, and the *real* public *utility* which will flow from it? Are they fearful, that theſe weighty conſiderations will not receive their merited attention from a future parliament? Or do they entertain ſuch an overweaning affection for the public, that they dread, that whilſt

they

they are cutting the great trunk, ſome dire cataſtrophe will deſtroy her happineſs, *the Trent* at the one end, and *the Weaver* at the other, become *dry*, and the *navigations uſeleſs*, and conſequently their darling communication between *Hull* and *Liverpool* retarded, unleſs they can execute their whole plan at once?

But let theſe gentlemen be aſked, whether the communication between *Hull* and *Liverpool* will not be, to all intents and purpoſes, as effectual, and every conſideration of public utility anſwered, if the propoſed canal were to be confined between *Burton* and *Northwich?* Would not * "a great expence be "ſaved, and" many "needleſs damages avoided?" Does *public utility* require any junction with the Duke of *Bridgewater?* Will not the communication between *Hull* and *Liverpool* be *accelerated*, [if the ſcheme be in its nature practicable,] were the undertakers reſtrained to the cutting of the canal between *Northwich* and *Burton?* What neceſſity can be urged for paſſing a law, for cutting the *whole* canal, in this ſeſſion?

The owners and truſtees of the *Burton* and *Northwich* navigations, alarmed at the impending danger which threatens them, find themſelves under an indiſpenſible neceſſity of laying their caſe before parliament, under *whoſe faith* they hold their properties, and *whoſe protection* they are not conſcious of having in any inſtance forfeited. Without patronage, without connections, and without even wiſhing for any other ſupport than what the equity and juſtice of their caſe demand, they truſt that their humble remonſtrances will procure them the attention and relief of parliament, in whoſe wiſdom and juſtice they have a dutiful and perfect reliance. Though their

* See firſt part, page 82.

enemies

enemies are *mighty*, it is humbly presumed, that their schemes require only to be clearly *understood*, in order to be *defeated*.

The owners of the old navigations conceive, that they ought to repel the invidious imputation of bearing unkind ideas to the great scheme of opening a communication between the ports of *Hull* and *Liverpool*. They are bound in justice to declare themselves sincere and zealous friends to that public, useful and arduous undertaking; but they are free to contend, that the plan now under consideration is unfairly and unnecessarily extended; and they flatter themselves that they shall neither incur censure, nor provoke resentment, by endeavouring to guard their properties from unjust, capricious, and injurious violation.

The views of these projectors may, in some degree, be penetrated, and their arguments anticipated, by the *able* and *curious* publications, which have, *in different shapes*, appeared upon this occasion. Such as are *worth* notice will be remarked upon.

It is insisted, "that the canal navigation will be "better than the river navigation between *Wilden* "and *Burton*;" but let it be observed, that the navigation between *Burton* and *Wilden* is, *in all respects*, better than the navigation between *Wilden* and *Gainsborough*, which is near *ninety* miles; and the argument holds much stronger for extending the canal even to *Gainsborough*, than for stopping at *Wilden Ferry*.

The reason urged * "for falling in at *Wilden* ra-"ther than *Burton*" is "to avoid the shallows, "which greatly interrupt the navigation on that ri-"ver."

* See part 1st, page 57.

The

The ſhallows are fewer in proportion between *Burton* and *Wilden* than between *Wilden* and *Gainſborough*; and the boats which go from *Burton* are from thirty to forty tons burthen, and are to the full as large as any that are navigated from *Wilden*, *Nottingham*, or any other place below *Burton*.

More goods are carried upon an average between *Burton* and *Wilden* than between *Wilden* and *Gainſborough*; and where any lightening is neceſſary, it generally happens at the ſhallows below *Wilden-Ferry*.

Boats have frequently run from *Burton* to *Gainſborough*, and back to *Burton*, which is two hundred and twelve miles, in ſeven days; the voyage is performed in twelve days, upon an average, including two days for loading and delivering.

In order to diffuſe ungenerous prejudices, and to divert and miſlead that ſober enquiry, which is ſo ſeriouſly deſired, and is ſo eſſential to this great ſubject, inſinuations have been dropt, that the navigation between *Burton* and *Wilden* is a monopoly; but let it be remarked, that this is a conſideration foreign to the merits of this bill; and thoſe, who are intended to be affected by the imputation, are far from wiſhing to ſhield their conduct from a parliamentary examination; and they engage to prove, that the buſineſs of this navigation is executed with care, fidelity, diſpatch, and *acknowledged* propriety.

Trade may be carried on betwen *Burton* and *Wilden* with at leaſt *equal expedition*, and *conſiderably cheaper*, by the river, than it ever can be by the canal.

* "The reaſons" [the projectors ſay] "for "preferring a canal to a river navigation are many "and important. The ſhortneſs of the voyage on

* See 1ſt part, page 56.

"the

" the former, which is protracted on the latter by
" the winding course of the stream; the absence of
" currents which in rivers impede the upward navi-
" gation, more than they assist the downward; and
" hourly undermine and wear away the banks; and
" the security from mischief and delay occasioned by
" the floods."

Why will the voyage be much shorter by a canal than a river navigation? Does not the canal run down the same valley with the river? Must not every great winding of the river be nearly the same in the canal? Will not a voyage be made as soon on the river as on the canal, boats being assisted by the stream downwards, and upwards frequently by winds?

Must not the mischief and delay be the same, whether the canal falls in at *Wilden-Ferry* or *Burton*, as boats can always work from *Burton* down to *Wilden-Ferry*, ready to go forward from thence, by the time the river is in condition for boats to work below *Wilden? Is not a canal sooner affected by frost?*

" An easier draught" [Messrs. Projectors insist]
" will be made for the horses, as the boats will in a
" canal move nearer the towing-path; and the ad-
" vantage in choosing high ground for the locks,
" whilst, in the other case, the situation of them
" must be regulated only by the accidental shallows
" of the rivers; and in river navigations, the locks
" being frequently erected on low lands, the neigh-
" bouring meadows are thereby often rendered
" damp, and swampy."

This grave and pitiful argument is beneath refutation.

" It is also" [say they] " another circumstance
" not unworthy of notice in favour of canals, when
" compared with river navigations, that as the con-
" veyance upon the former is more speedy, and
" without

" without the interruptions and delays, to which
" the latter are very liable; opportunities of pilfer-
" ing earthen wares, and other ſmall goods, and
" ſtealing and adulterating wine and ſpirituous li-
" quors, are thereby in a great meaſure prevented.
" The loſſes, diſappointments, and diſcredit of the
" manufacturers ariſing from this cauſe are ſo great,
" that they frequently chuſe to ſend their goods by
" land, at three times the expence of water-car-
" riage, and ſometimes even refuſe to ſupply their
" orders at all, rather than run the riſque of for-
" feiting their credit, and ſubmitting to the deduc-
" tions that are made on this account."

As we are not yet let into the ſecret, why water-men, who work upon canals, are neceſſarily honeſter than thoſe who are employed upon rivers, this article muſt paſs unanſwered.

The next advantages, which are recounted, are the ſuperiority over land-carriage, [by an eſtimate which indeed is widely exaggerated,] and the beneficial communication of the neighbouring counties; but ſurely theſe gentlemen will not venture ſo far to inſult common ſenſe, as to deny, that all theſe great, glorious and patriotic conſequences would follow, if the canal ſhould be confined between *Burton* and *Northwich*.

Is it contended, that the navigation between *Burton* and *Wilden* is a bad one? Can it be *improved*, ſhould the water be taken out of the *Trent above Burton*, and not returned till it comes *below Wilden*? Does not every brook and ſpring, which are to be cut through, *now* empty themſelves into the *Trent*? And if theſe are to be diverted into the new canal, muſt not the *Burton* navigation be extremely prejudiced by this irreparable loſs of water?

Muſt not the inconveniences of floods and re-ſhipping be the ſame at *Wilden* as at *Burton*?

No argument, *justly* and *fairly* drawn from Considerations of *public* necessity, and *public* convenience, can be produced in favour of this extention.

Will public utility be promoted, by permitting the company of proprietors to demand a tonnage of two shillings, *between* Burton *and* Wilden-Ferry, *when the old undertakers are entitled only to* three pence?

The *Liverpool* river to *Frodsham-Bridge* (being about seventeen miles) is naturally navigable; and the river *Weaver*, from *Frodsham-Bridge* to *Northwich*, (being about fifteen miles) and from *Northwich* to *Winsford-Bridge*, (about seven miles more) is already navigable by locks set upon that river; so that a navigation from *Liverpool* is already extended towards the *Trent* near thirty nine miles.

This navigation will completely answer all *public* purposes, as the tonnage will be very considerably lower than upon the canal; heavy goods from *Liverpool* to *Winsford-Bridge* pay only ten pence *per* ton; others twelve pence; and the highest only one shilling and three pence; and in nine years more, it cannot exceed one shilling *per* ton.

A communication between *Hull* and *Liverpool* may be more easily and more beneficially opened, by a canal from *Winsford-Bridge* by *Checkley-Brook*, near *Wrine-Hill*, which may be extended by *Stafford*, below *Shutborough*, to the *Trent*; or by *Newcastle*; or by *Burslem*.

The advantages, which the *public* would derive from a communication between *Hull* and *Liverpool*, were it effected by the canal, which has been hinted at, are many and obvious. Suffice it *now* to observe, that the tonnage between *Winsford-Bridge* and *Checkley-Brook* (which is twenty-one miles) will not exceed one shilling, and between *Winsford-Bridge* and *Frodsham-Bridge* (which is twenty-two miles) one shilling more; *in all, two shillings*; whereas the

tonnage,

tonnage, for *forty three miles* upon the new canal, may amount to *five ſhillings and four pence halfpenny.* The whole *freight and tonnage* of heavy goods from *Checkley Brook* to *Liverpool* (which is near *ſixty miles)* will ſcarcely amount to *ſix ſhillings* per ton!

A canal from the *Trent* to the port of *Cheſter* might be made at a much leſs expence to the undertakers, and leſs prejudice to private property, than the propoſed canal from *Wilden Ferry* to *Runcorn Gap.*

There are now between eighty and ninety veſſels, from forty to fifty tons burthen, employed upon the river between *Liverpool*, *Northwich* and *Winsford*; and ſome of the veſſels, after ſtopping and clearing out at the Cuſtom Houſe in *Liverpool*, proceeded to the Welch coaſts, and to *Lancaſter* and *Whitehaven.*

Veſſels between *Liverpool* and *Frodſham Bridge* come and return with the tide, and ſometimes make that paſſage in three or four hours: are uſually about ſix hours in paſſing between the loweſt lock near *Frodſham Bridge* and *Northwich*; and about the ſame time between *Northwich* and *Winsford Bridge. They paſs through a lock in about five minutes.* Seventy thouſand tons of goods, upon an average, are carried yearly upon this river.

The veſſels could carry a much greater quantity, and may be increaſed, if the trade required it; but their navigation muſt ſeverely ſuffer indeed, if the water of the river is taken from it, by diverting its ſtreams into the new canal; and no water can be collected from *Harecaſtle* towards *Runcorn Gap*, but what muſt be diverted from the river *Weaver.*

If the new undertakers will aſſert, that the *Weaver* navigation is liable to objection on account of floods, it may be anſwered, that this inconvenience may effectually be removed by making two additional

 locks;

locks; and upon the whole, this navigation is more commodious to the Public than any canal can be; but this useful and advantageous convenience cannot be long preserved to society, if the water is to be intercepted, and the tolls destroyed, by this dangerous and ruinous project.

It has been intimated, "that the river *Weaver* "at *Frodsham Bridge* sometimes wants water at neap "tides;" but this is by no means peculiar to *Frodsham Bridge*; the *Mersey* at a considerable distance below sometimes wants water; and whenever vessels can work to the *Hemp Stones* or *Runcorn Gap*, they may go to *Frodsham Bridge* and *Northwich*.

[This idea we apprehend is started, merely to induce a belief of the *necessity* and *expediency* of carrying the new canal from *Runcorn Gap* over the *Mersey* to *Liverpool*.] The scheme of carrying the proposed canal over the *Mersey* at *Runcorn Gap*, if not impracticable, is, at least in the highest degree dangerous.

The navigation at *Runcorn Gap* is a natural one; but it must be liable to the most fatal interruptions, if an aqueduct should be attempted to be carried over it.

The river is in that part *five hundred and sixty yards* wide; and at spring tides, the water flows near *eighteen* perpendicular *feet*. The masts of vessels of ninety tons burthen are near seventy feet high; there is now scarcely sea room, and vessels are sometimes driven upon the sands. Now what must be the *situation*, if an aqueduct, supported by piers and arches, should be made there? Will it not necessarily ruin the navigation of the *Mersey* from *Liverpool* to *Warrington*, *Sankey* and *Manchester*? Will it not expose vessels of forty, fifty and sixty tons (which pass there near eight thousand times a year) to the most dreadful and incessant dangers?

Were

Were it either practicable or convenient to make an aqueduct over *Runcorn Gap*, and continue a canal to *Liverpool*, the expence would necessarily occasion so high a tonnage, that goods would be always carried *cheaper* by the old navigations.

To the objections against this branch of the extention, we beg leave to add an humble conjecture, that the proprietors of the canal, proposed to be cut from the *Trent*, *were they at liberty to pursue either their inclination or their interest*, would most chearfully have joined the *Weaver* at *Northwich*, especially as permission has been offered to them to navigate by that river to the *Mersey* at *six pence per ton*. This junction would have relieved them of the most expensive and most invidious part of the enterprize. Every *real* and *fair* advantage would have been secured to the Public; and if these gentlemen cannot embrace this proposition, it must be imputed to difficulties *foreign* to *their wishes* and the *true end* of their undertaking.

Will not the Public be highly injured, if the navigation between Witton Bridge *and the* Mersey *(by the canal) is liable to a tonnage of* ONE SHILLING AND EIGHT PENCE, *when all goods might be carried from the same canal, by the river* Weaver *to the* Mersey *for* SIX PENCE *per Ton?*

The managers of this extraordinary Bill are fond of impressing an opinion, "that a *new* communi-"cation will be opened with the eastern and nor-"thern counties, were the proposed canal to meet "the Duke of *Bridgwater*'s at *Preston Brook*." But are these gentlemen ignorant (or do they wish that others should be so) that a more effectual and advantageous communication with *Manchester*, and even *Stockport* and *Macclesfield*, and all the great trading towns in *Cheshire*, will be compleated by the new canal, which is intended to be made, by a Bill which has passed the honourable House of Commons,

"for cutting a canal directly from *Witton Bridge* to *Knutsford*, *Macclesfield*, *Stockport* and *Manchester*;" and which it is not doubted will soon pass into a law, as it *really* stands upon the laudable and immoveable basis of public utility?

If these gentlemen should presume to controvert this point, or endeavour to establish an argument in favour of *their own* navigation from *Witton Bridge* to *Preston Brook*, and along his Grace's canal to *Manchester*, on account of there being no lock, it has been observed, *that a lock may be passed in about five minutes*; and it is irresistibly evident, that boats may go from *Witton Bridge* to *Manchester*, by this canal, with nearly the *same expedition*, and at the *same* expence in *freightage*, and with *a saving of more than thirty per cent. in the article of tonnage.*

The subscribers to the new canal are entitled only to a tonnage of *two shillings and six pence* from *Witton Bridge* to *Manchester*; and only *two shillings and three pence* to *Stockport*; whereas by the proposed canal from the *Trent*, a tonnage of *one shilling and three pence* may be demanded from the intersection of the two canals about a mile above *Witton Bridge* to *Preston Brook*; and the *tonnage* upon any part of his Grace the Duke of *Bridgwater*'s *canal* is full *two shillings and six pence* more.

These projectors should be reminded too, that by the canal which is to be cut directly from *Witton Bridge* to *Manchester*, a *new* and *very useful* communication will be opened with the north-east parts of the county of *Chester*; that the greatest part of the county, through which this canal is to be cut, is very populous; where several valuable manufactures are carried on; that many articles of these manufactures may be more easily conveyed to *Liverpool*, and from one market-town to another; that it will facilitate the conveyance of all merchandize between the river

Weaver

Weaver and the towns of *Knutsford* and *Macclesfield*, and from thence to the adjacent parts of *Derbyshire*; —of salt from *Norwich* to *Knutsford*, *Macclesfield*, *Stockport* and *Manchester*;—of wheat, flour and oat-meal, and other produce, to *Stockport* and *Manchester*, for the supply of those markets, and the adjacent towns and manufacturing countries;—of coals from the collieries at *Norbury* and near *Stockport*, to that town, and to *Macclesfield* and *Knutsford*;—of lime from *Macclesfield* to *Manchester*, *Stockport*, *Knutsford* and *Northwich*, and the adjacent countries, for building, and the improvement of land;—of slate and flag from the quarries near *Macclesfield*, and of stone and other materials for the repair of *highways*;—and will be attended with many other conveniencies, which cannot arise from the canal from the *Trent*, or from the Duke of *Bridgwater*'s canal, *even though a Branch was to be made from* Cheadle *to* Macclesfield;—in a word, that it will produce all the *real* and extensive advantages of an inland navigation, without being liable to an imputation of *oppression* and *injustice*, by cutting a canal, parallel for many miles with an old and useful navigation.

This navigation will neither obstruct the canal from the *Trent* (which it crosses a mile from *Witton Bridge)* nor the Duke's near *Stockport*; as the Bill directs, "that the canal from *Witton Bridge* be "made *nineteen feet below* the *Trent* canal, and *twenty* "*feet above* his Grace's, at the places where they "are to cross."

A cut from Cheadle *to* Macclesfield has been proposed, with the evident view of preventing a communication between the navigation of the *Weaver* and the several towns which have been mentioned, and between those towns with each other; and the owners of collieries in and near *Norbury*, from sup-

plying those places with coals, to the prejudice of his Grace, who by his own act is under no restraint as to price, beyond *Manchester*.

Is it either just or reasonable, that the Duke should extend his canal, at his pleasure, through the lands of gentlemen in *Cheshire*, in order to bring his coals to a better market; and these very gentlemen be denied the liberty of making a canal to supply their neighbours with their own coals, which they might afford to sell at a much cheaper rate? Are not the *Norbury coals*, though brought to *Stockport* by land carriage, sold as cheap as the Duke's at *Altrincham* or *Manchester?* Will not the owners of the collieries in or near *Norbury*, be able to reduce the price of coals at *Stockport*, and the adjacent country, when brought by the proposed canal? Could they not supply the adjacent country, much cheaper than the Duke?

Is the Duke's boasted reduction of the price of coals at *Manchester* from four pence to three pence half penny per hundred, the effect of *choice* or *necessity?* Are not other coals, with which great part of that town is now supplied, brought there by land carriage?

Is not the Duke, by reason of his high tonnage, likely to continue the sole carrier upon his own canal; and must he not become the sole carrier upon all branches from it?

May not his Grace's agents, if branches be thus multiplied from his canal *(abusing his confidence)* by degrees, monopolize the corn, flour, meal, and other necessaries, dispose of them at his own warehouses, without bringing them to market, and make his Grace's exclusive privilege of water carriage the instrument of the most outragious exactions?

Might not his Grace's monopolizing the canal navigations of these countries, be *one day*, the source of

of the moſt extenſive and alarming inconveniences?

The peculiar and undeniable ſuperiority of the canal that is propoſed to be cut directly from *Witton Bridge* to *Mancheſter*, is the eſtabliſhing a *new communication*; and the Duke of *Bridgwater*'s canal (if it were to be diverted to the *Merſey* above, or to the *Weaver* below, *Frodſham Bridge*, inſtead of terminating either at the *Hemp Stones* or *Runcorn Gap*) may eaſily communicate with the canal, which is intended to be cut from the *Trent*, ſhould the wiſdom of parliament fix its boundaries between *Burton* and *Northwich*; and reſcue two eſtabliſhed navigations from ruin, and thirty miles of land from hoſtile, unneceſſary and grievous incurſions.

The Duke of *Bridgwater*'s panegyriſts loudly extol the generoſity of his Grace in "extending his "canal from *Sale Moor* to *Stockport*, *about ſeven* "*miles*, without the conſideration of any additional "tonnage;" and for which he has obtained an act of parliament in this ſeſſion, *without any oppoſition*. But ſurely theſe gentlemen ought not to have *concealed*, that by this very act his Grace is entitled to the ſame tonnage, for theſe ſeven miles, as from *Mancheſter* to the *Hemp Stones*; and they ſhould have *added*, that the whole tonnage of two ſhillings and ſixpence is payable, if a veſſel ſo much as touches upon any part of his Grace's canals. We are anxiouſly deſirous to do juſtice to the perſonal worth of his Grace, and have too high a ſenſe of it to harbour even a ſuſpicion, that he would deign to accept a compliment, which is founded in fallacy.

The extenſion, which is now oppoſed, we do not heſitate to repeat, neither is, nor *can be* ſupported by a *ſingle* argument, fairly drawn from conſiderations of public *juſtice*, public *neceſſity*, or *public convenience*; but we could eaſily aſſign *private* reaſons

reaſons in abundance; ſome of which it behoves us to mention.

It cannot be doubted, that his Grace the Duke of *Bridgwater*, by not locking down at the *Hemp ſtones*, according to the original termination of his canal, will be relieved of an expence of many thouſand pounds; and it is equally certain, that his Grace, by keeping ſo high a level, cannot mean to incur this expence, by locking down at *Runcorn Gap*, where he now wiſhes, that his own and the new canal ſhould terminate; becauſe boats, which are navigated upon the canal could not live there; and it muſt evidently be his Grace's intention only to crane the goods down for the preſent; and in after times, to carry an aqueduct over *Runcorn Gap*, and to continue his canal to *Liverpool*; a project, which we apprehend muſt neceſſarily involve the deſtruction of all the navigations, which now communicate with this branch of the river *Merſey*.

Are not wiſdom and juſtice called upon to preclude all flattering expectations of countenance to this mighty but dangerous enterprize, by preventing the propoſed canal from being carried *at an enormous expence*, to *Runcorn Gap*, *with ſuch an object avowedly in contemplation?*

Add to this, by this union with the *Trent* canal at *Preſton Brook*, his Grace will not only entirely command the carriage of ſalt and all other goods. which ſhall be navigated from *Middlewich* to *Mancheſter* [if the ſcheme of cutting a canal directly "from *Witton Bridge* to *Knutsford*, *Macclesfield*, "*Stockport*, and *Mancheſter*" ſhould, *contrary to all expectation*, miſcarry;] but by this very Bill a new tonnage is given to him upon all goods, which ſhall be carried by the *Trent* canal to the river *Merſey*, or down his own canal to *Mancheſter*. In fine, if this unfortunate extention ſhould take place, and the

the other communication *(by any unforeseen accident)* be defeated, his grace must necessarily engross all the canal carriage of these countries.

These are a few of the many *private* advantages which will result from the extention; but we flatter ourselves, that it is incontestibly clear, that it has no foundation either in *public utility*, or *public justice.*

Should it be asked, What have the proprietors and trustees to fear, if business can be done better and cheaper by the old navigation than by the canal? They beg leave to answer, that the company of proprietors may engross the freight upon the canal between *Burton* and *Northwich*, and consequently carry all the goods below the old navigations; the effects of which are too obvious to need explanation.

We cannot dismiss these considerations, without taking notice of the very singular fallacies, which were made use of, in order to procure a public sanction to this *grand* enterprize.

At the public meeting, on the 30th of *December*, the country gentlemen were allured with an expectation of the proposed canal going nearly in a line *from Hare Castle to Agden.*

Great public advantages would have flowed from this destination; *which* gentlemen imagined they were promoting. By this course, many thousand pounds would have been saved; and none but the agents and engineers (whose work would have been sooner compleated) have suffered; and perhaps they themselves would have found very *handsome* recompence by their coal, from the mines and estates, which they have purchased near *Hare Castle*, in expectation of this new canal being cut from the *Trent* to the *Mersey*.

Thus

Thus was public approbation snapped by a most intolerable piece of disingenuity; and if these extraordinary projectors are solicitous to efface the imputation, and to "*assert their Right to general Confidence*;" let them be asked, Why in the very title of this bill, *as it now stands*, is the course of the canal carried "*to or near* Lawton *and* Astbury," when it is not *really* intended to reach within four miles at least of *Astbury?* Is this expression retained, merely to continue the delusion, and, by a dexterous ambiguity, to lull the country gentlemen into a belief, that the canal will still be carried to *Agden*, according to its original designation?

Were they afraid to name, either in their petition, or in the title of their bill, any town beyond *Astbury*, lest the fallacy should have been detected?

This branch of the scheme would have eminently assisted the purposes of *public utility*, though at the expence of *private interests*, too considerable and important to be easily resisted; in the first place, his Grace the Duke of *Bridgewater* could not have secured to himself advantages, equal to his meeting the canal at *Preston-Brook*, where all the lucrative tonnage must necessarily center; besides, by carrying the canal *over the* Mersey *near* Agden, it would run through a coal country, and might give birth to a disagreeable competition with his grace's coal trade.

It is matter of general amazement, that any set of gentlemen should venture to apply to parliament to carry a project into execution, which must unavoidably produce such terrible and extreme consequences to private property;—without having previously made an actual Survey;—and without apprizing those, who are likely to be affected, otherwise than by a series of *imperfect*, *erroneous*, *fallacious* and *inconsistent* plans, laid down by a scale of only a quar-

ter

ter of an inch to a mile.—Ought not a plan to have been made upon a ſcale of at leaſt one inch to a mile;—deſcribing with minute and exact preciſion the true courſe and windings of the rivers and of the canal,—the extent of each perſon's property which is to be cut through,—the quality of the land; the diſtances from the manſion houſes of gentlemen of fortune;—with the levels clearly aſcertained, and the expence of cutting this canal, and calculation of the quantity of goods to be carried from different places, eſtimated; in order that the rate of tonnage might be equitably and juſtly fixed?

Seeing what they ſee, have not gentlemen every reaſon to be jealous of the extraordinary powers which theſe projectors are likely to be inveſted with? *Who* will be able, in the preſent indefinite ſtate of things, to check or controul them, if they ſhould preſume to deviate from what they *now* find it convenient to avow *for a Day* as the real courſe of their canal? Are or can they be reſtrained from elbowing, at their pleaſure, "to meet any ſpring, brook, "ſtream, or watercourſe, within the diſtance of five "hundred," *or even five thouſand* "Yards?"

Are they not at full liberty to cut and vary the courſe of the canal, where they pleaſe, provided it goes near "*Wilden Ferry*, to or near *Swarkſtone* and "*Willington*,—*Whichnor*, *Rudgley*, *Stone* and *Burſ-* "*lem*, and through or near *Lawton*, *Aſtbury*, *Mid-* "*dlewich*, and near *Northwich*, to the river *Mer-* "*ſey?*"

Might not this authority, thus uncircumſcribed, be uſed as a rod to terrify a ſtubborn freeholder, bravely engaged in defence of his property, into an acquieſcence under the moſt dreadful and arbitrary impoſitions? We ſhall not enlarge upon this point; we ſhall leave gentlemen to conſider the conſequences.

Can

Can human wisdom, under these circumstances form any estimate, which is, can, or ought to be depended upon? Was not the sum of *one hundred and one thousand* pounds named at the meeting at *Wolsley-Bridge* as the extent of the expence? has not a *great*, *able* and *accurate* engineer since informed us, "that the estimate will amount to *one hundred and* "*thirty three thousand* and ELEVEN HUNDRED "pounds?"

The bill indeed permits these gentlemen to go as far as one hundred and fifty thousand pounds; but have they been acquainted, that their wise engineer has valued land at ten pounds per acre, which is beyond all dispute worth FORTY GUINEAS?

Let them pause for a little upon the credit, which is due to their estimate, before they embark in this very difficult undertaking; they doubtless will find, and perhaps by this time are sensible that it is *their true* interest, to postpone the whole scheme till another season.

Surely these gentlemen are not so vain as to flatter themselves, that when their estimates shall have been found widely disproportionate to the real expences; and their thousands will have been dissipated, in an ineffectual attempt to cut through and procure sufficient water from *Hare Castle*, they shall be able, *by cutting their canal at both ends*, to repair this sad misfortune, at the expence of the old navigations. If they indulge such chimerical expectations, we are bold to testify our perfect confidence, that by this bill, all these unjust and ridiculous hopes will be precluded; that these Gentlemen will not be entrusted, upon this occasion, with any authority to go below either *Burton* or *Northwich*. When they shall have cut this great trunk; (and we shall not tremble much, if our misfortune is not to visit us till that day;) when they shall have completely opened a commu-

communication between *Hull* and *Liverpool*, which this juſt and neceſſary limitation of their plan will undoubtedly haſten; then, loaded with merit and honour, let them apply to parliament, for leave to make the extenſion; when they would certainly meet with the *reception*, which will be *due* to them.

If the proprietors of the new canal ſhould not be tied down in this article, by the moſt ſolemn reſtrictions; the old navigations muſt be expoſed to certain and irretrievable ruin; and the communication between the ports of *Hull* and *Liverpool*, *by means of this canal*, in all human probability left uncompleted.

Theſe are conſiderations which we comfort ourſelves will meet with the peculiar and watchful attention of parliament; who will not ſuffer the property of the meaneſt individual to be unjuſtly ſacrificed.

It is upon theſe principles, that the owners and truſtees of the *Burton* and *Weaver* navigations implore protection in this critical and deciſive conjuncture—They have undertaken to demonſtrate, that their properties *may* remain *untouched* and *unviolated*; and no ſyſtem of *public utility be interrupted.*

Free from every impreſſion of private malevolence, they are anxiouſly deſirous of guarding theſe humble conſiderations, againſt every poſſible conſtruction of a perſonal attack upon his Grace the Duke of *Bridgewater*; to whom they bear that juſt veneration and reſpect, which are due to an high and exalted character; and they know, that his Grace is actuated by ſentiments too noble and too generous, to ſuffer his indignation to be enflamed by an oppoſition which duty, intereſt and neceſſity have combined to dictate; or by a denial of his

Grace's

Grace's *exclusive right to canal navigation*, of which he is not the original inventor.

Far from harbouring any idea, in the remotest degree, unfriendly to the many great, illustrious, and truly laudable enterprizes of that nobleman, we only wish to confine them within *just* and *proper* limits; and we presume to hope, that the *splendor* of his projects will not intercept a *just* attention to the *consequences* of them. But if engineers have encouraged a profusion of expence in former schemes, which have not answered, surely they ought not to retrieve their miscarriage, (however essential to a continuance of favour and confidence,) with the vitals of innocent individuals.

The owners and trustees of the old navigations beg leave, in all events, to submit, "that the tonnage, collected by the company of proprietors, ought to be equal, through the whole canal, for every species of goods; with some particular exceptions."

The bill provides for fixing an equal tonnage, through the whole canal, at the first meeting of the proprietors; and authorizes them to fall and raise them as occasion should offer; with the concurrence of commissioners.

If these gentlemen should succeed in fixing *different* tolls on *different* species of goods, a dreadful extent of mischief must follow; because by imposing a very low tonnage for all the *staple articles* of the old navigations, they must necessarily be stripped of all their trade; and when these are irreparably destroyed, and every possibility of their contest ceases, a *friendly* meeting of commissioners may raise and even perpetuate the tonnage, at the highest price which the act of parliament authorises.

The old navigators implore, that this capital regulation may be made under the auspices of parliament,

ment, and that this very extenſive propoſition will not be entruſted with intereſted proprietors, controuled only by commiſſioners, who may be *liable at leaſt* to the aſſaults of *extraneous* and dangerous *ſolicitations.*

If the proprietors ſhall be pleaſed to aſſert, that it is not now practicable to aſcertain the tolls which are to be collected, and that an equal tonnage cannot with juſtice be extended to all articles indiſcriminately; permit us to anſwer; fix your equality, with as many exceptions as ought to be enumerated; but if you are not prepared to aſcertain the tonnage; poſtpone; come again in another ſeſſion; but you will not preſume to put the expence of ſoliciting this bill in competition with the whole property of the two eſtabliſhed navigations; and we ardently truſt, that our ALL will not depend upon the deciſion of any other judicature than a *Britiſh* parliament.

The company of proprietors ought not to be formed into a company of navigators beyond a certain number. Intuition ſhews the neceſſity and utility of this proviſion. Proprietors of tolls, (by conſolidating tonnage and freightage in one charge) might take an inferior tonnage upon goods navigated by themſelves; and full tonnage upon all others; and would conſequently monopolize the freightage of the whole canal; for *who* could carry goods upon equal terms with thoſe who can make a conſiderable deduction in the lock dues?

The public muſt conceive very advantageous expectations of the utility of an inland navigation between *Hull* and *Liverpool*, when they are informed, that the freight of goods will neceſſarily amount to forty ſhillings per ton.

UPON THE WHOLE, it is hoped, that the conſideration of this very important bill will be poſtponed:

Becauſe the very practicability of the ſcheme is doubtful.

Becauſe the *whole* of the undertaking has been neither conſidered, nor diſcloſed at any public county meeting.

Becauſe the country has been deceived, as to the real courſe of the canal; and it cannot be known, with preciſion, whoſe lands will be cut through.

Becauſe the diverſion propoſed in favour of the duke of *Bridgewater* is irregular, unparliamentary, foreign to the nature and title of the bill, and may eſtabliſh a precedent dangerous to property.

Becauſe extending the canal either beyond *Burton* or *Northwich* is not founded in neceſſity, nor ſupported by conſiderations of public utility.

Becauſe this extenſion is unjuſt, and will involve two effectual navigations, eſtabliſhed *under the faith* of parliament, in certain and irreparable ruin.

Becauſe this extention could only be deſired for *private* views, or to make a *more lucrative* job for engineers.

Becauſe an effectual communication between *Hull* and *Liverpool* may be completed, without this extenſion.

Becauſe the confining of the canal between *Burton* and *Northwich* will not only conſiderably accelerate the communication between *Hull* and *Liverpool*, but will prevent an enormous expence, and preſerve the old navigations from injury, and thirty miles of land from unneceſſary mutilation.

Becauſe if the canal ſtops at *Northwich*, a *new*, *cheap* and *expeditious* communication with *Mancheſter* will be opened, by a canal which is to be cut directly from *Witton* Bridge.

Becauſe the Duke of *Bridgewater* might divert the termination of his own canal to the *Merſey* above, or to *Weaver* below, *Frodſham* bridge, and

open

open *another* communication with the new canal and *Manchester*.

Because no actual survey has been made, nor correct plan taken, nor any fair estimate formed; nor can the undertakers themselves be aware of the expence which they may be liable to.

Because the course and termination of the canal being neither clearly known nor properly fixed, a power of varying five hundred yards may be attended with *fatal* consequences to individuals.

Because it would be dangerous to precipitate in this session, a bill of this magnitude, which has received no previous, local deliberations.

Because *an eager solicitude for carrying this great and complicated bill, in all events in this session, must flow from a jealousy, that the scheme would be* generally *disapproved, and the subscribers* revolt, *if a public opportunity were given of examining and discussing the full and real tendency of it, with an attention and severity equal to its importance.*

CASE, *in Behalf of the* BILL *for making a Navigable* CUT *or* CANAL *from the* Trent *to the* Mersey.

IT is very unfortunate for the common interest of the public, that plans the most maturely digested, and framed on the most liberal and beneficial principles, are liable to be misrepresented by the attempts which private interest or personal jealousy raise in opposition to their progress.

The influence of such partial and invidious motives was never more apparent than in the endeavours which have been made to create undue prejudices

 against

against the proposed canal from the *Trent* to the *Mersey*. A noble design, of which the benefit is not confined to a few towns, or even counties; but which is calculated to improve the commerce and agriculture of the nation in general, as by diminishing the price of carriage, it will not only contribute to the better cultivation of our lands, but to render the necessaries of life more cheap, and to reduce the price of our manufactures, whereby in the end we shall acquire a permanent superiority over our foreign competitors.

But the more readily to attain these great objects, it is necessary that the trunk of the proposed canal should terminate at such points as will be most immediately advantageous to commerce, *and will most easily admit of a farther extension.*

With these views, the undertakers of the intended navigation have proposed that it should terminate at one end in a *free* part of the river *Trent*, and at the other end in a part of the *Mersey*, which is not liable to the interruption of *neap* or low tides; by which means also, an easy communication may be opened with the great manufacturing town of *Manchester* and its neighbourhood; and from whence the canal may be extended over the river into *Lancashire*, to the general benefit of the interior parts of that county, as well as of the port of *Liverpool*, and of all the towns and places through the whole extent of the navigation.

But though the advantages which will attend these terminations, are so obvious, yet some, influenced by partial regards, either overlook them, or, seeing them, would wilfully represent them to others in a false point of view, so as to beget an opinion that the intended canal would better terminate at *Northwich* and *Burton*.

The inexpedience however of such terminations, and

and the public injury which would result from them, will be apparent to every unprejudiced mind, attentive to the following facts and observations.

It will be necessary to premise that by the bill in question, the intended navigation is proposed to unite with the canal in part made, and authorized to be farther continued, by the Duke of *Bridgewater*, at a place near *Preston-Brook*, whereby goods will in twelve hours be constantly and certainly conveyed from the part of the navigation opposite *Middlewich* to *Manchester*, without the interruption of a single lock, or any necessity of transhipping: and they will likewise be conveyed under the same advantages, from the part of the canal opposite to *Northwich*, in ten hours.

But should the canal, on the other hand, be made to terminate in the river *Weaver* at *Northwich*, there must be not less than *forty-nine feet* of locking between that place and *Middlewich*, which, computing *seven* feet to a lock, will require *seven locks*. Between *Northwich* and the *Mersey* likewise, there are *five locks* more, so that all the goods carried by this conveyance to *Manchester* and the neighbouring places must descend not less than *seventy-five* feet to get into the *Mersey*, and must then be mounted up an equal ascent, to come into the Duke's canal. Not to mention, that all goods must be transhipped, and that the vessels must be liable to infinite delays upon the river navigation by floods and locks, as well as by waiting for tides, and by meeting with contrary winds and stormy weather, which they will be entirely free from upon the canal.

The difference likewise in point of distance between the two modes of conveyance is *fourteen miles* in favour of that proposed by the bill: and with respect to the price of carriage, it scarce exceeds half the rate to which the other will amount. To this

may be added, that if the canal ſhould terminate at *Northwich*, the communication between the interior parts of the kingdom and the port of *Liverpool*, would not, in any degree, be ſo compleat, as if it was to terminate at *Runcorn*, as the conveyance from thence would be more certain, and at the ſame time more cheap and expeditious than from *Northwich*.

As it is evident, from the above ſtate of facts, that it would be highly injurious to the public intereſt, if the intended canal ſhould terminate at *Northwich*; ſo it will, in like manner, be apparent, that it would be equally detrimental, if the other end was to terminate at *Burton*.

With reſpect to this part of the caſe, it is neceſſary to obſerve, that the river *Trent* is navigable by nature from *Gainſborough* to *Wilden*; and by an act of the 10th and 11th *William* the Third, the Lord *Paget* and his heirs were impowered to make it navigable from *Wilden* to *Burton*. This navigation is yet far from being compleated: and as by a clauſe in the act, all perſons are reſtrained from building wharfs or warehouſes on the ſides of the river, without the conſent of the noble undertaker and the commiſſioners; this circumſtance, together with the management of the leſſees, has, as will be proved, rendered this navigation a compleat *monopoly*. Beſide, if the canal ſhould terminate at *Burton*, as the mills and the forge below the town are in the poſſeſſion of the leſſees of that navigation, it would be in their power, by drawing off the water, to lay the boats aground between the warehouſes and the mills, and thereby diſtreſs the veſſels, and interrupt the commerce upon that part of the river.

Add to this, that there are many ſhallows between *Burton* and *Wilden*, which in dry ſeaſons are not navigable, but by means of flaſhes of water let off

from

from the mills, and by withholding this water, the lessees may, as they frequently have, impede the navigation below *Burton Lock*, and render it totally dependent upon their pleasure. So that if the canal was to terminate at *Burton*, all the goods going upwards must be liable to these inconveniencies, or be sent by land-carriage for *ten* or *fifteen* miles, when they might, for the same expence, be conveyed half the length of the canal. And though it may be said, that there are shallows below *Wilden*, yet they are not so inconvenient, and have additional supplies of water; but surely it must be admitted to be of great advantage, to adopt that plan which is not attended with half the difficulties of the other. Not to mention, that by the canal there will be a saving of *five* miles in the distance from *Burton* to *Wilden*.

With respect to the low rate of tonnage, which is urged as an argument against extending the canal to *Wilden*, though it is true, that the lessees are not impowered to take more than *three pence*, by way of *tonnage*; yet, under the name of *wharfage*, they actually take *eight times* that sum. But it will appear, from a fair calculation, ready to be produced, that by continuing the canal from *Burton* to *Wilden*, there will be a saving in carriage of more than *four shillings per* ton between those places, besides the advantages to trade from the greater certainty and expedition in the conveyance.

It may not be immaterial to observe, that the promoters of the bill, have conducted it upon such fair and liberal principles, as their opponents have rather chosen to misrepresent, than to imitate. They trust, however, that they shall be able to refute, by evidence before the house, the several groundless objections and injurious insinuations, which have been industriously propagated by the parties interested, and by nameless writers; some of whom have, with un-

exampled temerity, even ventured to misstate and arraign the proceedings of parliament, in a matter then depending before the house. The promoters of the bill being anxious to establish it upon a plan most conducive to the general good, and to avoid doing any detriment to individuals, did most chearfully, as far as in them lay, adopt various clauses for securing the property of several land-owners. They cannot forbear observing likewise, that the commissioners and proprietors of the navigations of the *Weaver* and the *Trent* at *Burton*, and their agents, had copies of the bill long before it went to a committee, and that they constantly attended its progress, though they did not think proper to petition till the committee was closed: from whence it is apparent, that they do not want to have any compensation or redress for any losses or injuries to which they may be liable, but would endeavour entirely to defeat the bill, in order that they may continue their unreasonable exactions upon the public without any check or controul.

Upon the whole, it is submitted to the judgment of the candid and unprejudiced, whether under the circumstances above stated, it will not be highly injurious to the public, to fix the termination of a canal of such great length and general importance, in a part of a river which is a *monopoly*, and a very great grievance to the country; as it must moreover be attended with great and frequent delays, difficulties and losses; all which may be avoided, by making the termination in a part of the same river which is *free*.

FACTS

FACTS *and* REASONS *tending to ſhew, that the propoſed Canal, from the* Trent *to the* Merſey, *ought not to terminate at* Northwich *and* Burton; *and to prove, that this Plan hath been* well digeſted, *and hath not wanted public* Notoriety.

THAT the good of a part muſt always give way to the good of the whole, when they happen to interfere, is one of the moſt eſſential principles of civil aſſociation: but it is at all times reaſonable, that the great intereſts of the community ſhould be purſued and ſupported, with as little injury as poſſible to individuals.

In the courſe of human affairs, and during the gradual improvement of the arts of life, ſmall things are conſtantly yielding to greater, bad to good, and good to better, in proportion as human genius expands, and enriches the world with its diſcoveries; and it is the unavoidable effect of every new improvement, in ſciences or in arts, to diminiſh the value of leſs perfect ſyſtems, and works of inferior utility.

But it is a circumſtance which gives much pleaſure to the friends and promoters of the bill for a canal from the *Trent* to the *Merſey*, that very few individuals will ſuffer by the execution of this great deſign. And when a work of ſuch extenſive utility is under conſideration, it is certainly deſirable to have it executed in ſuch a manner as to render it as compleat as the nature of the thing will admit.

The object of this deſign is not local; it is not confined to a few towns or counties. A great and general diminution of the price of carriage, between the inland counties and ſea-ports, will contribute moſt effectually to increaſe the *cultivation of our lands*, to reduce the *price of our manufactures*, and to give

give us a *superiority* over our most formidable competitors, at *foreign markets*.

And when the *branches* already intended, and others that may be useful and practicable, are joined to this great canal, the trade of a considerable part of the kingdom will receive the advantage of this new conveyance. It is therefore to be wished, that the TRUNK may be terminated, so as to facilitate commerce in the *best manner*, and the most easily to admit of *further extension*. For these purposes the undertakers of the intended navigation are desirous that it may be terminated in a *free* part of the river *Trent* at one end, and carried to a part of the *Mersey* at the other, which is not liable to the interruption of *neap tides*; by which means a communication may also be opened with the great manufacturing town of *Manchester* and its neighbourhood, and from whence the canal may be extended over the river into *Lancashire*, to the *general benefit of the interior parts of that county*, as well as the port of *Liverpool*, and of all the towns and places through the whole extent of the navigation.

That it would be a very great limitation of its utility, and consequently a *public injury*, to *mutilate* this GREAT CANAL, by terminating it at *Burton* and *Northwich*, we presume will appear, to every impartial person, from the following facts and considerations.

By means of the junction of the *great trunk* with the Duke of *Bridgewater*'s canal near *Preston Brooke*; merchandize will be conveyed from that part of the navigation near *Middlewich*, to *Manchester*, without *the interruption of a single lock*, or the *expence*, *damage* and *delays*, occasioned by *transshipping*, uniformly and certainly, in *twelve* hours: And from that part of the canal opposite to *Northwich*, in about *ten* hours. But if this canal should terminate

in

in the river *Weaver* at *Northwich*, there muſt be 49 feet of locking between *Middlewich* and that place; which, at ſeven feet to a lock, will require ſeven locks; and between *Northwich* and the *Merſey* there are five more; ſo that all the goods going *this way* to *Mancheſter*, and its neighbourhood, muſt be carried down a ſort of navigable ſteps *ſeventy-five feet*, to deſcend into the *Merſey*; and then to be mounted up another ſeries of ſteps, 79 feet high, to come into the Duke of *Bridgewater*'s canal.

It is alſo neceſſary to obſerve, that all the goods muſt be *transſhipped* at *Northwich*, which generally occaſions a conſiderable delay, as well as damage; and that the veſſels muſt wait for a *ſufficient tide* to carry them into the *Merſey*; and when they get thither, they muſt lie at anchor, till another tide enables them to turn the point of land, and get up to *Runcorn Gap*. This will be the quickeſt paſſage they can make: But they may meet with contrary winds, or ſtormy weather, that may retard their paſſage *many days*.

It is alſo very material to obſerve the different lengths of theſe two roads from *Northwich* to *Mancheſter*. By the two rivers, and the Duke's canal, the diſtance is 48 miles, by the canals 32 miles; the difference 16 miles.

Another very material circumſtance, attending carriage, is the price of it. As the *time* and *riſque* in going from *Northwich* to *Runcorn*, by the two rivers, will always be as much, and often more, than in going to *Liverpool*, the price will at leaſt be equal. The comparative expence of taking goods off the canal at *Northwich*, and ſending them down the *Weaver*, into the *Merſey*, and up the Duke of *Bridgewater*'s canal to *Mancheſter*; and of conveying them from the *ſame place*, upon a *level*, through the

the *two canals* to that great manufacturing town, will therefore ſtand as follows:

	£.	s.	d.
Tonnage and freight, from *Northwich* to *Liverpool*, is 5*s.* 3*d.* *per* ton;			
Suppoſe the ſame to *Runcorn* —	0	5	3
Wharfage, tranſ-ſhipping, *&c.* ſuppoſe	0	0	9
Freight and tonnage on the Duke's canal, to *Mancheſter*, —	0	4	0
	0	10	0

	£.	s.	d.
From *Northwich* to the point of junction with the Duke's canal at *Preſton-Brooke*, being 8 miles, —	0	1	0
From thence to *Mancheſter*, —	0	2	6
Freight 32 miles, being no lock, —	0	1	8
	0	5	2

Saving 4*s.* and 10*d.* *per* ton.

But ſuppoſe the expence upon this compariſon, ſhould have turned out juſt contrary; the riſque and delay of this *round about* conveyance, would moſt certainly prevent the *Mancheſter* goods from ever being ſent this way; and indeed, to all who know the circumſtances, the propoſal muſt appear too ridiculous to merit a ſerious confutation.

Another way has been propoſed to defeat the intended union with the Duke of *Bridgewater*'s canal. It has been ſaid that the *Mancheſter* goods may be conveyed to and from the ſame points, by the *Cheſhire* canals, without this union. The *agents* of the Bill for the *great canal* have conſtantly avoided interfering in any thing relative to the *Cheſhire* canals:

nals: But ſince attempts are made to prevent the Public from having a *much better* conveyance to *Mancheſter*, they are obliged to deſire that the following particulars may be properly attended to.

By means of the junction, goods may be conveyed from near *Northwich* to *Mancheſter*, upon a *level*, as has been obſerved before, in about ten hours; and his Grace's canal is *actually making*, and will ſoon be finiſhed. Whether the other canals will ever be made is very uncertain, though they ſhould receive the ſanction of the legiſlature; as it is the opinion of able and experienced engineers, that they will not coſt leſs than the enormous ſum of 70,000*l.* and that it is very doubtful whether all the tonnage that can reaſonably be expected to come upon them, will raiſe ſo much money as will be neceſſary to keep the numerous locks in repair: And if the ſubſcribers ſhould, upon reflection, think this may poſſibly be near the *truth of the caſe*, it is hardly probable they will chooſe to riſque ſo *hazardous an experiment*.

But ſuppoſe theſe *canals* actually made; the lockage *up* from *Northwich* to *Mottram* will be no leſs than 235 feet, and down from *Mottram* to the *level* of *Mancheſter*, 138 feet; which, at 7 feet to a lock, will require above 50 locks; and the delay that this circumſtance muſt occaſion, will unavoidably be ſo very conſiderable, as to render the other way much more *expeditious*, and *beneficial to the Public*.

It is alſo worthy of obſervation, that if the canal ſhould terminate at *Northwich*, the communication between the *interior parts of the kingdom*, and the *port of Liverpool*, would not be near *ſo compleat* as if it was to terminate at *Runcorn*; as the conveyance by this laſt place, would at the ſame time be *cheaper* and more *expeditious*.

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If goods are taken off the canal at *Northwith*, to be ſent down the *Weaver*, they will be liable to be retarded, in the firſt place, at *Pickering*'s lock, about four miles above *Frodſham Bridge*, where there is a ſhallow by which veſſels are detained, ſometimes five, ſix, or ſeven days, for want of water. The ſpring-tides only flow here about *an hour and a half* each tide, and it is only during that ſpace (except in land-floods) that a boat can paſs this ſhallow. There is likewiſe, above *Frodſham Bridge*, a *bar* that runs acroſs the river, which, during low neaps, is impaſſable for three or four days. There are likewiſe ſeveral *other ſhallows* in this river. Theſe *delays* and *inconveniencies* render this navigation *ineffectual* for the conveyance of the produce even of the *county of Cheſter*; as far the *moſt conſiderable part* of the CHEESE produced in that county, is now carried *by land*, *parallel* with the *whole length* of this EXCELLENT *navigation*, to *Frodſham Bridge* and *Bank Quay*; from which places it is conveyed by flats, to *Liverpool*, there to be reſhipped for *London* and other *markets*;—and SALT, the other *ſtaple article* of this county, is ſent in *great quantities*, all by land-carriage, from *Northwich* to *Mancheſter*, for the ſupply of that town, and a very extenſive and populous neighbourhood, notwithſtanding the preſent *navigable communication* between thoſe places. *Facts*, that prove to a *demonſtration*, how *ineffectual* the preſent *navigations* are for the commerce of the country they paſs through: and how much the counties of *Lancaſhire* and *Cheſhire*, in particular, are intereſted in having a *better* conveyance. And, by the immenſe quantities of earth, brought down by the artificial river navigations (which are perpetually robbing the landowners of conſiderable parts of their eſtates) the *depth* of water in the rivers is *conſtantly diminiſhing*;

ſo

ſo that theſe interruptions will be continually growing worſe.

And this way will not only be more liable to *delays*, but alſo more expenſive than by *Runcorn*, as will appear from the following compariſon:

				£.	s.	d.
The freight and tonnage of *ſalt* and other merchandize from *Northwich* to *Liverpool*, by the preſent navigation, amount to 5*s.* 3*d.* *per* ton —				0	5	3
The freight and tonnage from *Northwich* to *Runcorn-Gap*, by the intended canal, will amount to no more than two ſhillings *per* ton, —	0	2	0			
And from thence to *Liverpool*,	0	1	6			
				0	3	6
Saving *per* ton by the canal, —				0	1	9

And why ſhould the merchandize, upon this *great canal*, be ſubject to go by a *dear* and a *bad way*, when it may as well go by a *cheaper* and a *better?* This would be ſacrificing the *public intereſt* to a *ſmall concern*, by which no perſon can ſuffer; as the *ſalt* from *Winsford* and *Northwich* will continue to go down the *Weaver*, to avoid transſhipping:—As this article alone will pay the intereſt of the debt;—and as a conſiderable part of the debt, upon that navigation, may be paid off, if the truſtees think proper, before the great trunk can be finiſhed.

Let it alſo be *well obſerved*; for it is a circumſtance of *great importance*, that the water at *Runcorn* is about five feet *higher* than at *Pickering's*

lock; and that ſuch veſſels as will be uſed in this trade, will not be liable to be interrupted there by *neap tides*.

Facts, which independant of the *great object* of going by a canal all the way to *Liverpool*, are, we preſume, ſufficient to convince every impartial perſon, that it would be much againſt the *public intereſt* to terminate the canal at *Northwich*.

And it is preſumed the following important *facts* will alſo ſhew, that the other end of it ought not to terminate at *Burton*.

The river *Trent* is navigable by nature, from *Gainſborough* to *Wilden*; and by an act paſſed in the 10th and 11th of *William* III. the Lord *Paget* and his heirs, were empowered to make it navigable from *Wilden* to *Burton*; for which they were to receive a duty of 3*d*. per ton, on all the veſſels that ſhould navigate upon that part of the river.

In purſuance of this act, the river has not yet been pounded up *one inch higher* that it was before: And conſequently the navigation hath not been *eſſentially improved*. Paſſages have only been opened through two mill weirs, by means of two locks; which have frequently been made uſe of, not to *facilitate*, but to *obſtruct* the navigation; and as by a clauſe in this act, all perſons are reſtrained from building *wharfs* or *warehouſes* on the ſides of the river, without the conſent of the *noble undertaker*, and the commiſſioners; this circumſtance, under the management of the leſſees, hath rendered the navigation a compleat *monopoly*.

The diſtance from *Burton* to *Wilden*, by the river, is about 20 miles, and from *Burton* to *Wilden*, by the intended canal, only 15 miles.

If the canal ſhould terminate at *Burton*, as the *mills* and *forge* below the town are in poſſeſſion of the preſent leſſees of that navigation, it would be in

their

their power, by drawing off the water, to lay the boats aground, between the *warehouses* and the *mills*, and thereby to distress the vessels, and to *interrupt all the commerce* that might depend upon that part of the river.

There are upwards of twenty *shallows* between *Burton* and *Wilden*, which are not navigable, except when there are freshes in the river, but by means of *flushes* of water, let off from the mills: And by *withholding* this water, the lessees may, and have frequently interrupted the navigation below *Burton Lock*; so that the navigation of this part of the *Trent* depends *entirely upon their pleasure.*

In the *Weir* at *Kings-Mills* there are a number of *floodgates*, one of which is very large, and was made by the former lessee, on purpose to draw the water off suddenly: And, by means of these gates, the water may likewise be with-held or let off by the OCCUPIER * of those mills, so as *totally to interrupt the navigation.*

In the year 1749, the *lessees* took an opportunity, when all the boats belonging to a certain company, which they wanted to distress, were below this *Weir*, to *sink a boat, laden with stones, in the lock*, and this answered *their purpose*, though it was a great *injury to the Public:* For all the goods that went down the navigation, during the space of 8 years and 8 months, were, by the continuance of this obstacle, under a necessity of being taken out of the boats above the lock; and were then carried, or rather *rolled* and *tumbled* into other vessels below; by which means many goods received great injury, and much earthen-ware, especially, was sent to foreign

* A lease of these mills has been lately granted to Mr. *Samuel Garbett* of *Birmingham*; whereby *that gentleman* will have the KEY of this *navigation.*

markets *broken* and *destroyed*, under all the *expences* of whole and perfect merchandise.

If the *canal* terminates at *Wilden*, the *manufactures*, *malt*, and other *produce* of those parts of *Leicestershire*, *Derbyshire* and *Nottinghamshire*, that lie near to the termination, may be conveyed by *water* from *Wilden* to the port of *Liverpool*, and several of the northern counties, and *entirely escape* the shallows, and other inconveniencies of the *Burton* navigation: But if the canal was to terminate at *Burton*, all the goods going *upwards* from the above-mentioned *district*, must either be liable to the inconveniencies of that navigation, or subject to the expence of land-carriage for 10 or 15 miles; which expence would convey them half the way to *Liverpool*.

In answer to the objection, that *there are several shallows in the Burton navigation*, it has been replied, that *there are likewise shallows below Wilden*; by which reply it is insinuated, that if we have twenty difficulties to overcome, and cannot obviate them all, there is no advantage in avoiding one half of them:—An insinuation that might have some little weight, if boats could not frequently pass over the shallows *below Wilden*, by means of the additional water and freshes of the *Derwent* and the *Soar*, when the shallows above *Wilden* are impassable.

The low tonnage on the *Burton* navigation, is also produced as an argument against extending the canal to *Wilden*; but though the lessees are not empowered to take more than 3 *d.* under the name of *tonnage*, yet they find means to take *eight times* that sum, on the goods carried by others, under the name of *wharfage*.

And if it should likewise appear, beside the expedition and uniform dispatch of a canal navigation, that goods may be conveyed to *Gainsborough*, from that part of the *canal* oppose to *Burton*, much cheaper

cheaper than they are *now* carried by the *river*, then it is presumed the advantage of extending the *canal* to *Wilden* will not admit of the least hesitation. And surely this is a plan of too much *national consequence* to be *abridged*, or *injuriously limited*, for the sake of *those* to whom the Public is not so much indebted for their *past services*, as to lie under an obligation to indulge them in their present *generous attempt* to prevent any body else from *serving it better*.

				£.	s.	d.
On the best authority, it is asserted, that the present average price of carriage by the river from *Burton* to *Gainsborough* is 12 *s. per* ton, --				0	12	0
From *Wilden* to *Gainsborough*, about 90 miles, any quantity of goods will be conveyed at 5 *s. per* ton, —				0	5	0
Therefore from *Burton* to *Wilden*, about 19 and $\frac{1}{2}$ miles, the expence is 7 *s. per* ton, - - - -				0	7	0
By the canal from *Burton* to *Wilden*, being about 15 miles, the tonnage and wharfage for that distance, at $1\frac{1}{2}$ *d.* a mile, amount to —	0	1	$10\frac{1}{2}$			
Freight, at the rate of 6 *d. per* ton for 10 miles, - - -	0	0	9			
				0	2	$7\frac{1}{2}$
Saving to the Public, by extending the canal to *Wilden*, 4 *s.* and $4\frac{1}{2}$ *d. per* ton,				0	4	$4\frac{1}{2}$

It is therefore humbly submitted to the *legislature*, all these circumstances being considered, whether it would not be a very great *injury to the Public* to fix the end of a canal of such length and *immense importance*, as that from the *Trent* to the *Mersey*, in

so *bad* a part of a river which is a *monopoly*, when it may, *so much more advantageously*, terminate in a *better* part of that river which is *free?*

And as an attempt has been made to defeat this *noble undertaking* by *insinuations* that it has not been sufficiently *digested*, that it wants the requisite *notoriety*; and by a notorious *falshood*, boldly asserted in print, that "a meeting at *Wolsley Bridge*, held "the 30th of *December* last, was the *only* one which "preceded the application to parliament," it will be requisite for the information of those gentlemen, who may not be acquainted with the subject, to put down a few *plain facts*, whereby they may judge what credit ought to be given to *publications*, that contain such *glaring falshoods*.

A *survey* of the greatest part of this design was taken, at the expence of the Corporation of *Liverpool*, in the year 1755; and a plan of this survey was engraved.

Another *survey* was made in 1758, and paid for by a subscription in *Staffordshire*.

In the same year a pamphlet on this subject was published in *London*, and dispersed in those parts of the country that were most likely to be affected by the execution of the plan: and many towns were made acquainted with it by personal applications.

In 1760, a public meeting was advertised, and held at *Sandon* in *Staffordshire*, where Lord *Gower*, Mr. *Anson*, and the gentlemen of the neighbouring counties attended, to consider of the measures to be taken for carrying the plan into execution; and some difficulties arising, at that time, the gentlemen desired farther surveys might be made, and that they might be extended from *Tide-way* to *Tide-way*: and near 1000*l.* was immediately subscribed for that purpose.

The

The next public meeting, by advertisement, was held the same year at *Wolsey-Bridge*, when another survey made by Mr. *Smeaton* and Mr. *Brindley*, of that part of the intended canal between *Wilden* and *Harecastle*, was ordered to be engraved, the other surveys not being compleated; and copies of these plans were delivered to the land-owners, and neighbouring gentlemen.

By these means, this *design* was already very generally made known, and expected to be carried into execution, as will particularly appear by the following fact,

About this time, the former lease of the *Burton* navigation being expired, the *lessee* applied to the noble proprietor for a renewal of it, for which he demanded a sum not much short of 4000 *l.* The lessee offered 3000 *l.* on condition, that if the *intended canal* should be made in *ten* years, 1000 *l.* of the money should be returned. But the noble proprietor rather chose to have a smaller fine certainly fixed; than to have any trouble about such contingencies: and as the lessee did not comply with this proposal, his Lordship did actually grant a lease of the navigation to a new company, for a *certain* fine of 2500 *l.* rather than be liable to the trouble of future applications and deductions, on account of any *interfering extension:* so that the lessees may truly be said to have received a compensation already.

After more than *ten* years deliberation upon this subject, it was determined to make a vigorous attempt to carry the plan into execution: and some late *exactions* upon the *Burton* navigation, added to the *delays* and *inconveniencies* attending that of the *Weaver*, contributed not a little towards raising a proper spirit in the country, for this purpose.

A meeting was therefore called, on the 20th of *March*, 1765, and a subscription begun towards the

expence of the Act; and it was ordered, that personal application should be made to the gentlemen of *Cheshire*, *Liverpool*, *Birmingham*, *Lichfield*, and other places, to inform them of this intention, and to desire their concurrence and assistance; which was accordingly done. The Commissioners of the *Weaver navigation* were waited upon at their public meeting in *Northwich*, on the 4th of *May* following, and informed that it was intended to cut past that navigation; the reasons for which were produced to them in writing; and a plan of the *canal*, so far as it could then be ascertained: and they would much sooner have had the satisfaction they now complain for the want of, if the surveyors had not been stopped, by one of the commissioners, and *absolutely refused* the liberty of proceeding with their survey.

The 13th of *May* a public meeting, by advertisement, was held at *Newcastle* in *Staffordshire*, when further surveys were ordered to be made, and other necessary business to be done; and the commissioners of the *Weaver navigation* sent their treasurer, and clerk of the navigation, to attend this meeting.

The next meeting was advertised for the 27th of *June* following, at the same place. At this meeting the plan was agreed upon; the heads of the bill produced, read over and approved; and near 20,000*l.* subscribed, or promised to be advanced: and the result of this meeting was inserted in the public papers.

Another *pamphlet* * was then published, upon this subject, of which above 1000 copies were sold and

* *A View of the Advantages of Inland Navigations*, printed for *Becket* and *De Hondt*, in the *Strand*; and *Johnson* and *Davenport* in *Pater-noster-Row*; to which pamphlet we beg leave to refer for ample proofs of the *utility* of inland navigations in general, and particularly of the intended canal from the *Trent* to the *Mersey*.

distri-

distributed: and in this *pamphlet* the intended junction with the duke of *Bridgewater*'s navigation was expresly mentioned.

The last general meeting on this occasion, was on the 30th of *December* at *Wolsey-Bridge*, when the former steps were confirmed; and it was again unanimously agreed to petition for a *canal* from the *Trent* at *Wilden*, to the river *Mersey*.

It is not, therefore, for want of *notoriety*, or because this *scheme* has not been *sufficiently digested*, that it meets with *opposition*; but because it has been *too well* digested, and offers the public more *advantages* than some interested individuals could wish; and who would have been much better satisfied, if the plan had been *more defective*.

Upon an *impartial* and *comprehensive view* of the CASE, respecting the intended *canal* from the *Trent* to the *Mersey*, the friends of that undertaking hope it will appear——that the great *outlines* of this design were drawn above ten years ago; that the plan hath since received many improvements; that the *preference* given to the terminations fixed by the bill, as it now stands, is supported by the clearest reasons of *public utility*; that the execution of this plan will be a *great* and *permanent* benefit to the *agriculture* and *commerce* of this kingdom; that it will reduce the price of carriage above *six shillings* in *eight*; and thereby enable us to meet our *commercial competitors* at *foreign markets* upon *much better terms* than we can at present. That it will greatly preserve the public *roads*; and lessen the expence of keeping them in repair. That it will *most essentially* advance the *wealth* and *strength* of this nation; by increasing the *quantity* of our *home products*, and of our *exports*; and, by finding employment for greater numbers of *vessels* and *seamen*: that it will diffuse a spirit of navigation through the very heart of the

kingdom; and by bringing many boys and youths, from the inland counties, within the *influence* of *sea-port towns*, greatly *enlarge* the *field* for the production of sailors:—That it will find *immediate* and *constant* employment for vast numbers of people:—And lastly, that it will have a tendency to prevent *injurious monopolies* of the *necessaries of life*; by opening so extensive and cheap a communication between the *interior parts of the kingdom*, and *manufacturing towns and sea-ports*: for the "attempts of the most "powerful *monopolizer* must certainly be *ineffectual*, "in a country where plenty can be thrown into any "market, from all parts, by means of *navigable* "*canals*."

SUPPLEMENT *to a Pamphlet, entitled,* '*Seasonable* CONSIDERATIONS *on a* NAVIGABLE CANAL *intended to be cut from the River* TRENT, *at* Wilden Ferry, *in the County of* DERBY, *to the River* MERSEY, *in the County of* CHESTER.'

TWO *wretched* pieces, the one entitled, "*Case* "in Behalf of the Bill for making a navigable *Cut* "or *Canal* from the *Trent* to the *Mersey*;" and the other, "FACTS and REASONS tending to shew, that "the proposed *Canal* from the *Trent* to the *Mersey* "ought not to terminate at *Northwich* and *Burton*; "and to prove, that this Plan hath been well di-"gested, and hath *not wanted public Notoriety*," having been *cautiously* circulated, the *true friends* of the scheme for "opening a Communication between "*Hull* and *Liverpool*" chearfully embrace a second opportunity of exposing to public view the flimsy pretexts, under which the enemies of justice are driven to shelter themselves.

A few

A few hours only being allowed for these remarks, we hope, that we shall not be denied a degree of candour and indulgence, if fifteen *heavy* and *laboured* pages, and a sheet of three *full* pages more, are not examined with that minute precision, which is always to be desired in matters of importance.

In the course of the "Seasonable Considerations," which these pieces were intended to answer, various arguments were offered in order to prove, "that "*public utility* does not require that the proposed "canal should be extended beyond either *Burton* or "*Northwich*."

It is not disputed, that *private views* exist, which make this extension eligible.

Now we shall consider the manner, in which the propriety of their extension is supported by these matchless projectors,

The first ground is "that goods may go to *Man*"*chester* with more ease, by the *Trent* canal com"municating with the Duke of *Bridgewater*'s ca"nal at *Preston-Brook*, than by terminating at the "river *Weaver* at *Northwich*; as there will be no "lock to go through, and all inconveniencies from "transhipping avoided." But what is this ridiculous argument to the carriage of goods to *Liverpool*, which was the true object of this bill? Did the gentlemen, convened at *Wolsley-Bridge*, on the 30th of *December*, 1765, ever dream either of a communication with *Manchester*, or any junction with his Grace?

It can be demonstrated, that "whenever vessels "can work to the *Hempstones* or *Runcorn-Gap*," they may go to *Frodsham-Bridge* and *Northwich*; and let it be observed, that an effectual communication between *Hull* and *Liverpool*, is the scheme now to be discussed; the opening an intercourse with other places may be the subject of future considera-

tion;

tion; but cannot form the merits of this bill. Let this proposition be kept distinct; and it will be clearly understood.

There is a manifest fallacy in a "calculation from "*Northwich* to *Manchester*, by means of the two "rivers and the Duke's canal, compared with his "Grace's communication with the *Trent* canal at "*Preston-Brook*," by which these gentlemen are ingenious enough to deduce a "saving of four shil-"lings and ten pence *per* ton." But as this is also a consideration entirely foreign to the immediate subject of a communication between *Hull* and *Liverpool*, we cannot, with propriety, enter into an examination of it; though it is certain, that there would not be a *saving* to the public of *six pence per* ton.

These gentlemen in order to illustrate their pretensions make the following calculation;

				£.	s.	d.
"The freight and tonnage of *salt* and "other merchandize from *Northwich* to *Liverpool*, by the present "navigation, amounts to ——				0	5	3
"The freight and tonnage from *Northwich* to *Runcorn-Gap*, by the intended canal, will amount to "no more than two shillings *per* "ton —— ——	0	2	0			
"And from thence to *Liverpool* ——	0	1	6			
				0	3	6
"Saving *per* ton by the canal —				0	1	9

Let

Let a fair and just calculation be contrasted with the above:

	l.	s.	d.
By the canal; Tonnage from *Witton-Bridge* to *Runcorn*, being fifteen miles, 10. at $1\frac{1}{2}d.$ and 5 at 1d. is —	0	1	8
Freightage at one penny *per* mile for fifteen miles, is —	0	1	3
Wharfage and transshipping at *Runcorn*, — — —	0	0	9
Freight from thence to *Liverpool* —	0	2	0
	0	5	8
By the river; the tonnage and freightage from *Northwich* to *Liverpool* do not upon an average exceed —	0	4	0
	0	1	8

So that here is a *true* saving by the river of one shilling and eight pence *per ton.*

Confining these remarks to the opening of a communication between *Hull* and *Liverpool*, we shall purposely avoid entering into the merits of the new canal, which the *Cheshire* gentlemen wish to cut from "*Witton-Bridge* to *Knutsford*, *Macclesfield*, "*Stockport* and *Manchester*;" that scheme needs no other support than what its intrinsic and undoubted utility loudly claims; we know its fair prospect must create a jealousy in the minds of the most potent patrons of this bill. We shall upon the same principle dismiss every consideration of a communication with *Manchester* by the Duke's canal *(which is to be finished, God knows when)* as foreign to the question before us; but though the agents and engineers think it convenient to controvert the practicability, and

and aggravate the expence of all undertakings but their own, we venture to suggest, in favour of the *Cheshire* canal, that a *saving of thirty per cent. in the article of tonnage* will make ample amends for a trivial delay in passing through a few locks.

Goods " from *Northwich*, are not liable to be re-" tarded at *Pickering*'s lock above *Frodsham-Bridge*," nor are " vessels detained there," but very rarely " for want of water ;" nor is there " above *Frod-" sham-Bridge* any bar that runs across the river, " which, during low neaps, is impassable for three " or four days ;" all this is grosly misrepresented. " *A considerable part* of the *cheese* is" indeed " car-" ried *by land*, *parallel* with the *whole length* of this " *excellent navigation*, to *Frodsham-Bridge* and *Bank* " *Quay* ; from whence it is conveyed to *Liverpool*, " there to be re-shipped for *London* and other *mar-" kets*," because those places are the center for the delivery of cheese, and there are large warehouses there.

These gentlemen observe, " that if the canal should " terminate at *Northwich*, the communication be-" tween the interior parts of the kingdom and *Li-" verpool* would not be so complete, as if it was to " terminate at *Runcorn-Gap*." This is a bold assertion ; and an incomprehensible one into the bargain.

" The river *Trent*" [these projectors alledge] " has not since the act of the 10th and 11th of *Wil-" liam* III. been yet pounded up *one inch higher*, " than it was before :" but it does not follow, that " the navigation hath not been *essentially improved* ;" for " by means of two locks in the mill weirs" a better navigation was made than could be had below *Wilden* ; and making two feet of water there at all times, would have answered no purpose, unless it could be had in all parts below *Wilden*.

As

As to "drawing off the water at *Burton Mills*," is it natural to imagine, that any body of men will wantonly throw away the water, when the want of it must necessarily distress a large set of their own corn and flour mills, with an iron forge and fulling mills, depending upon detached and different interests?

There need not be any apprehension entertained of the present lessees of the navigation "interrupting "commerce, by drawing off the water of the river "from *King's Mills*, which they are in possession of, "below *Burton*;" for their lease is just out; and "*this key of the navigation*" has been privately taken from them; and it is more than *suspected*, that it has, *by some means or other*, got into the hands of the company of proprietors; but the projectors are under a delusion, if they are *serious* in thinking, that *King's Mills* are the key of the navigation; the business of which may be completely executed without them.

There are "fewer *shallows* between *Burton* and "*Wilden* than between *Wilden* and *Gainsborough*; "and those shallows are for forty miles frequently "assisted by flashes from the lower mills upon the "*Trent* and the *Derwent*;" and the present lessees have never withheld flashes of water from any boat.

The present lessees have not been engaged in this navigation more than three years; and consequently are not answerable "for the misconduct of their pre-"decessors in 1749," or in any other period. They have never fraudulently *destroyed*, *altered* or *mangled* their customers directions, or been guilty of any paltry or iniquitous practices; but have acted with universal *propriety*; of which they can produce the best testimonials.

It is no less their duty than their inclination, to lay before the public, in due time, the *true* sources of

of complaints which have *formerly* obtained against this navigation.—Let public indignation alight where it ought: they are anxious to meet every charge of insolence or exaction: armed with conscious integrity, they appeal with confidence to the just tribunal of a *British* parliament.

The present lessees have been the instrument of "restoring the lock," which their predecessors had destroyed; they have enlarged their wharfs and warehouses; encreased the number of their boats; and are in a condition to serve the public effectually; and it is upon these principles, that they are bold to consider themselves as intitled *in return* to public protection. To this, they desire to add, that in consequence of a public advertisement from the noble proprietor (who had justly conceived not only himself but the public egregiously abused by his former tenants) they treated for a lease for three lives; for which they paid his lordship a fine of 2500*l.*; and an additional sum of 4000*l.* to the former lessees for their interest in certain wharfs, *&c.*—and are besides liable to considerable rents; they have also employed a capital of 4000*l.* more in purchasing and making wharfs and boats; hence may be collected the injuries which they must suffer, if this canal is extended below *Burton*.

They cannot expect a compensation of any kind, unless the wisdom and justice of the legislature shall dictate it.

The present lessees have never taken more than *twelve pence* per ton "for wharfage," keeping accounts and collecting freight; which is the same as the wharfingers charge at *Gainsborough*; and there have been some hundred tons landed without any premium.

By

				£.	s.	d.
By the river, the present average price of carriage from *Burton* to *Gainsborough*, is, *per* ton, — —				0	10	0
From *Wilden* to *Gainsborough*, where the navigation is allowed to be free, the average price is — —				0	8	0
Therefore from *Burton* to *Wilden*, about 19 miles, the expence is *per* ton —				0	2	0
By the canal from *Burton* to *Wilden*, being 16 miles, the tonnage may amount to —	0	2	0			
Freight, upon an average, cannot be less than 1*d.* *per* mile —	0	1	4			
				0	3	4
"Saving to the public," by stopping the canal at *Burton*, "*per* ton" —				0	1	4

"It is therefore humbly submitted to the legisla-"ture, Whether it would not be a very great in-"jury to the public," as well as an unnecessary violation of private property, to suffer "a canal of such "length and immense importance" to run nearly parallel for thirty miles, with two good navigations; and to endanger a capital of forty thousand pounds: "when it might so much more advanta-"geously terminate" at *Burton* and *Northwich*; relieve the undertakers, already unmercifully loaded; preserve from depredation a fund from the *Weaver* navigation, which is sacred to public uses; secure thirty miles of land from grievous mutilation; and promote every consideration of *real public utility*.

Great

Great pains are uſed in the pieces which are under conſideration to induce a belief, "that the plan has "not wanted public notoriety;—" that "a ſurvey "was taken in 1755;" "another in 1758, and a "pamphlet publiſhed;"—"a public meeting in "1760, at *Sandon* in *Staffordſhire*;"—"other meet-"ings in *March*, *May*, and *June*, 1765;"—"at "the laſt of which, the heads of a bill were pro-"duced;"—now will the projectors dare to aſſert, that at any of theſe meetings, or even at the meeting at *Wolſley-Bridge* in *December* laſt *(really and truly the only one which uſhered in this application to parliament)* any idea was ſtarted of the company of proprietors *participating* with *the Duke* of *Bridgewater* at *Preſton Brook*, or of the canal's being declared to *terminate* at *Runcorn-Gap?*

Of the project *diſcloſed in this* Bill, the *notoriety* entirely fails; and our *arguments* remain *unanſwered* and *untouched*; we wiſh, that our adverſaries would pay the ſame juſtice to our *properties*.

Nothing is ſaid as to "the plan being well digeſt-"ed," only in the title page of "The Facts and "reaſons;"———no attempt has been made to prove, that any actual ſurvey has been made in order to appriſe the freeholders intereſted;——or calculations of goods likely to be carried, ſo as equitably to regulate the tonnage;——nay if their *accurate* engineer is to be believed, their capital of 150,000*l.* is unequal to the expence; *and their ſcheme muſt be ruined*; for though at one time he names 101,000*l.*; and at another "*one hundred* and thirty-three thou-"ſand and ELEVEN HUNDRED *pounds*;" yet the aggregate of his eſtimate given to the committee is 158,125*l.* which happens to be 8,125*l.* more than the capital authorized to be raiſed by the Bill.

This unhappy ſlip cannot be accounted for, only by ſuppoſing, that this wonderful projector has arrived

rived to ſuch a pitch of *ſelf-infallibility*, that he preſumed, that no one would venture to caſt up a ſum after him; and that the groſſeſt impoſitions would be implicitly ſwallowed.

Theſe induſtrious projectors having declared their confidence "that they ſhall be able to refute, by "evidence, the groundleſs objections and injurious "inſinuations which have been induſtriouſly propa-"gated by nameleſs writers;" it may not be unſeaſonable to remind them, that nothing has been thrown out in the pamphlet, entitled "Seaſonable "Conſiderations, &c." which is not founded in a religious attention to truth; and that all the facts will be proved, and every alluſion fully explained, whenever there ſhall be occaſion.

When our all is at ſtake, theſe gentlemen muſt not be ſurprized at bold truths. We conceive more favourably of their *underſtanding* than of their *virtue*; we cannot ſuſpect them of entertaining the chimerical idea of cutting through *Hare Caſtle*. We rather believe, that they are deſirous of cutting their canal at both ends; and of leaving the middle for the project of a future day. Are theſe projectors *jealous* of their *honour?* Let them adopt a clauſe (which reaſon and juſtice ſtrongly enforce) to reſtrain them from meddling with *either end*, till they have finiſhed the *great trunk?* This, and this alone will ſhield them from ſuſpicion.

We have been bound by every tie of duty to lay our caſe publickly before parliament, in whoſe wiſdom and juſtice we thus repeat our *dutiful confidence*; and whoſe proceedings, we do not preſume either "to miſtate or arraign."

OBJECTIONS to *part of* the proposed canal from *Wilden Ferry* to the *Mersey*; humbly submitted by the *true* Friends of the Scheme "for "opening a Communication between *Hull* and "*Liverpool*," who wish,

to *confine* this Canal between *Burton* and *Northwich*; which will considerably *hasten the Communication*;—*relieve the Undertakers* of forty thousand Pounds Expence;—*protect forty thousand Pounds* Capital, employed in the *Burton*, and *Northwich* Navigations, *from Ruin*; *preserve* thirty Miles of *Land from Devastation*; —and completely *answer* all the *real* Purposes of *public Utility*.

GREAT pains have been used in printed pieces to inculcate a belief, "that the plan of the canal "has not wanted public notoriety;—" that "a survey was taken in 1755;" "another in 1758, and "a pamphlet published;"—"a public meeting in "1760, at *Sandon* in *Staffordshire*;"—"other meetings in *March*, *May* and *June*, 1765;—at the "last of which, the heads of a Bill were produced;"—will the projectors dare to assert, that at any of these meetings, or even at the meeting at *Wolsley Bridge* in *December* last (*really and truly the only one which ushered in this application to parliament*) any idea was started of the company of proprietors *participating* with the Duke of *Bridgewater* at *Preston-Brook*, or of the canal's being declared to *terminate* at *Runcorn Gap*?

N. B. Many miles of land, lying out of the course of the canal, will be cut through without due notice, or any regular petition. A precedent deserving the most *jealous* attention of parliament!

Of

Of the project *disclosed in this* Bill, the *notoriety* entirely fails.

Nothing has been advanced, as to "the plan being well digested," only in the title page of a paltry piece, entitled, "The Facts and Reasons;" no attempt has been made to prove, that any actual survey has been made in order to apprise the freeholders interested;—or calculation of goods likely to be carried, so as equitably to regulate the tonnage;—nay if their *accurate* engineer is to be believed, their capital of 150,000*l.* is unequal to the expence; *and their scheme must be ruined*; for though at one time he names 101,000*l.* and at another "*one hundred* and thirty-three thousand and ELEVEN "HUNDRED *pounds*;" yet the aggregate of his estimate given to the committee is 158,125; which happens to be 8,125*l.* more than the capital authorized to be raised by the Bill.

"*Public utility* does not require, that the pro-"posed canal should be extended beyond either "*Burton* or *Northwich*; a communication between "*Hull* and *Liverpool* (and not *Manchester*) being "the object of this Bill.

"It is therefore humbly submitted to the legisla-"ture, Whether it would not be a very great injury "to the Public," as well as an unnecessary violation of private property, to suffer "a canal" to run nearly parallel for thirty miles, with two good navigations; and to endanger a capital of forty thousand pounds; "when it might so much more advantage-"ously terminate" at *Burton* and *Northwich*; relieve the undertakers, already unmercifully loaded; preserve from depredation a fund from the *Weaver* navigation, which is sacred to public uses; secure thirty miles of land from grievous mutilation; and promote every consideration of *real public utility*.

The following candid calculations deserve attention.

	£.	s.	d.
By the river, the present average price of carriage from *Burton* to *Gainsborough* is *per* ton - - -	0	10	0
From *Wilden* to *Gainsborough*, where the navigation is allowed to be free, the average price is - - -	0	8	0
Therefore from *Burton* to *Wilden*, about 19 miles, the expence is *per* ton	0	2	0

By the canal from *Burton* to *Wilden*, being 16 miles, the tonnage may amount to - -	0	2	0			
Freight, upon an average, cannot be less than 1 *d. per* mile -	0	1	4			
- - - - - -				0	3	4
"Saving to the Public," by stopping the canal at *Burton*, "*per* ton" -				0	1	4

The *Burton* navigation is stigmatized as a monopoly; the present lessees have not been engaged more than three years; and are not answerable for the misconduct of their predecessors in 1749, or in any other period.

Let public indignation alight where it ought: they are anxious to meet every charge of insolence or exaction: armed with conscious integrity, they appeal with confidence to the just tribunal of a *British* parliament.

By

	£.	s.	d.
By the canal; tonnage from *Witton-Bridge* to *Runcorn*, being fifteen miles, 10 at $1\frac{1}{2}$*d.* and 5 at 1 *d.* is -	0	1	8
Freightage at one penny *per* mile for fifteen miles, is - - -	0	1	3
Wharfage and transshipping at *Runcorn*	0	0	9
Freight from thence to *Liverpool* -	0	2	0
	0	5	8
By the river; the tonnage and freightage from *Northwich* to *Liverpool* do not upon an average exceed -	0	4	0
	0	1	8

So that here is a *true* saving by the river of one shilling and eight pence *per* ton.

The owners and trustees of the old navigations beg leave to submit, "that the tonnage, collected "by the company of proprietors, ought to be equal, "through the whole canal, for every species of "goods; with some particular exceptions."

If the proprietors should succeed in fixing *different* tolls on *different* species of goods, a dreadful extent of mischief must follow; because by imposing a very low tonnage for all the *staple articles* of the old navigations, they must necessarily be stripped of all their trade; and when these are irreparably destroyed, and every possibility of contest ceases, a *friendly* meeting of commissioners may raise and even perpetuate the tonnage, at the highest price which the act of parliament authorises.

The company of proprietors ought not to be formed into a company of navigators beyond a certain number. Intuition shews the necessity and

utility of this provision. Proprietors of tolls (by consolidating tonnage and freightage in one charge) might take an inferior tonnage upon goods navigated by themselves; and full tonnage upon all others; and would consequently monopolize the freightage of the whole canal; for *who* could carry goods upon equal terms with those who can make a considerable deduction in the lock dues?

It is suspected, that the projectors do not entertain the chimerical idea of cutting through *Hare Castle*. It is rather believed, that they are desirous of cutting their canal at both ends; and of leaving the middle for the project of a future day. Are these projectors *jealous* of their *honour?* Let them adopt a clause (which reason and justice strongly enforce) to restrain them from meddling with *either end*, till they have finished their *great trunk?* This, and this alone will shield them from suspicion.

The old navigators are bound by every tie of duty to lay their appeal publickly before parliament; in whose wisdom and justice they repeat their *dutiful confidence*.

A Cal-

A Calculation proving that the intended Navigation by a Canal from the Trent *to the* Mersey *is in Danger of becoming a* Monopoly.

THE tonnage, settled, *is not to exceed* 1½*d. per ton per mile.*

A high tonnage is ever the parent of a *monopoly*; which is proved, by experience, in other cases.

To demonstrate this;

	£.	s.	d.
The Tonnage of 1½*d. per* mile, is for every ten miles — —	0	1	3
Let it be supposed, every person carrying goods upon the canal, may do it upon an average at 1*d. per* mile freightage, which for 10 miles is —	0	0	10
Total tonnage and freightage for ten miles — —	0	2	1
Should the company of proprietors form themselves into a company of navigators, (supposing freightage the same as above) 1*d. per* ton *per* mile, for ten miles, is — —	0	0	10
Out of this high tonnage, it is very easy to foresee, that the proprietors may abate for what goods they carry, one halfpenny *per* mile; which for ten miles will reduce the tonnage to —	0	0	10
Total tonnage and freight for ten miles, by proprietors — —	0	1	8

This halfpenny abated from the tonnage, is half the real value of the freight; and therefore it will be impossible for any other navigator to carry goods, in opposition to the company of proprietors, under an embargo of 50 *per cent*. But all competition being

ing destroyed, they may raise the price of carriage without limitation.

Will not this be a monopoly *of the first rate?*

To remedy this glaring evil, it is proposed, that the company of proprietors may, by a short clause, be restrained from acting as an united company of navigators.——Not to prohibit every individual of them from being a navigator, or any number as partners, not more than 3, 4, or 5; for the subdivided partnerships will rival each other, and the public, by that means, be secured.

If those who act for the company of proprietors of the intended canal, have no design of a *monopoly*, they will not object to such restraining clause.——If they do, the conclusion necessarily follows.

It ought to be a fundamental rule in all public navigation bills, to keep separate and independent, the offices of undertaker and navigator, as the conjunction of those offices is always found to be the principal, if not only, cause of a *monopoly*.

April 14*th*, 1766.

☞ During this contest a bill was brought into parliament by the *Cheshire* gentlemen, in order to establish the *Macclesfield* canal: it passed the House of Commons, but was dismissed by the Lords. Another bill, for leave to cut a navigation from *Wilden-Ferry* to the Duke of *Bridgewater*'s canal at *Preston-Brook*, and from thence, jointly, to be carried on to the *Mersey*, at or near *Runcorn-Gap*, passed both Houses of Parliament; as did a third bill, for cutting a navigable canal from the river *Severn*, between *Bewdley* and *Titton-Brook*, in *Worcestershire*, to cross the river *Trent* at or near *Heywood-Mill* in *Staffordshire*, and to communicate with a canal intended to be made between the said river *Trent* and the *Mersey*.

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